February 17, 2012

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SUBJECT: TRANSMITTAL OF REQUESTS FOR INFORMATION PURSUANT TO 10 CFR 50.54(f) RELATED TO THERMAL CONDUCTIVITY DEGRADATION AND ITS IMPACT ON WESTINGHOUSE REALISTIC EMERGENCY CORE COOLING SYSTEM EVALUATIONS

This letter is to inform you that the NRC has transmitted five requests for information pursuant to Title 10 of the *US Code of Federal Regulations*, part 50, section 54, paragraph f (10 CFR 50.46(f)). The requests were sent to the licensees for the eleven NRC-licensed facilities that use Westinghouse-furnished realistic emergency core cooling system evaluation models, and whose predicted peak cladding temperatures are within 200 degrees Fahrenheit (F) of the regulatory acceptance criterion for peak cladding temperature at 10 CFR 50.46(b)(1) (collectively, 'the licensees').

The requests require the licensees to submit, within 30 days, estimates of the effect that an error, associated with the modeling of thermal conductivity degradation, has on each plant-specific implementation of the Westinghouse-furnished realistic emergency core cooling system evaluation models. The error is described in NRC Information Notice (IN) 2011-21, "Realistic Emergency Core Cooling System Evaluation Model Effects Resulting from Nuclear Fuel Thermal Conductivity Degradation." The IN summarized Westinghouse's position regarding the analytic treatment of nuclear fuel thermal conductivity degradation, stated that the NRC staff did not agree with Westinghouse, and characterized the analytic issue as an error.

The licensees were notified via teleconference on December 13, 2011, when the IN was issued. Additionally, a manager in the Office of Nuclear Reactor Regulation, NRC, notified a Westinghouse manager by telephone that the IN was being issued.

Since issuance of the IN, the NRC has received information from the licensees acknowledging the analytic issue. Not all of the licensees characterized the issue specifically as an error. All information received by the NRC indicated, however, that Westinghouse assistance would be required to quantify the effects of the issue or error.

In view of the NRC staff's stated conclusion that the issue described in IN 2011-21 constitutes an error, and since the error's magnitude could jeopardize the requisite, per 10 CFR 50.46(a)(1)(i), "high level of probability that the [peak cladding temperature] acceptance criteri[on] would not be exceeded," the staff determined that it was necessary to issue the requests for information to verify the compliance of these facilities to the applicable licensing basis requirements, including those contained in 10 CFR 50.46.

The NRC staff specified a 30-day response time to provide licensees adequate time to estimate the effects of the TCD error. The staff selected this time because it is consistent with the time required to report significant changes to or errors in the acceptable evaluation model as specified in 10 CFR 50.46(a)(3).

A representative sample of the letters can be found at Agencywide Document Access and Management System (ADAMS) accession number ML120410134. I trust that you will work with these licensees in developing a timely and technically defensible estimate of the effects of the thermal conductivity degradation error in the plant-specific applications of your realistic emergency core cooling system evaluation models.

If you have any questions regarding this matter, please contact

Sincerely,
/RA/

William H. Ruland, Director
Division of Safety Systems
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission

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