March 19, 2015

Mr. John W. Stetkar, Chairman
Advisory Committee on Reactor Safeguards
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

SUBJECT: RESPONSE TO THE ADVISORY COMMITTEE ON REACTOR SAFEGUARDS LETTER DATED FEBRUARY 12, 2015, ON THE FINAL REVIEW OF THE OPERATING LICENSE APPLICATION FOR WATTS BAR NUCLEAR PLANT, UNIT 2

Dear Mr. Stetkar:

On behalf of the U.S. Nuclear Regulatory Commission (NRC), I am responding to your letter dated February 12, 2015 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML15039A005). Your letter provided the views of the Advisory Committee on Reactor Safeguards (ACRS) on the status of the ongoing construction, inspection, and licensing review of the Watts Bar Nuclear Plant (WBN), Unit 2, operating license application. Your letter also referenced an interim letter dated November 26, 2013, that contained the ACRS's review up to that date. The ACRS undertook this review to fulfill the requirements of Title 10 of the *Code of Federal Regulations* Section 50.58, "Hearings and Report of the Advisory Committee on Reactor Safeguards."

In the February 12, 2015, letter, the ACRS concluded that there is reasonable assurance that WBN, Unit 2, can operate as the second unit of the dual-unit Watts Bar Nuclear Plant without undue risk to the health and safety of the public. The ACRS letter also concluded that the NRC staff has undertaken detailed planning and preparation to ensure the integration of WBN, Unit 2, will not create challenges to the operation of WBN Unit 1. Finally, the ACRS letter concluded that adequate recirculation core cooling will be assured following a loss-of-coolant accident, taking debris effects into account and providing that high levels of containment cleanliness are maintained.

In addition, the ACRS letter contained a recommendation related to the development of a probabilistic method for analyzing flooding hazards. The recommendation and the NRC staff's response follow:

ACRS Conclusion and Recommendation 4

We strongly endorse the development of a methodology for probabilistic flooding hazard analysis. This is important for future use, consistent with risk-informed, performance-based approaches to natural hazard assessment.

NRC Response

In response to interactions with both the Office of New Reactors and the Office of Nuclear Reactor Regulation, and from previous briefings and letters from ACRS, the Office of Nuclear Regulatory Research (RES) has re-focused its Flooding Issues Technical Advisory Group on probabilistic flood hazard assessment and has developed a Probabilistic Flood Hazard Assessment Research Plan. A draft of that plan was made available to the Commission with a note discussing associated timing and resources. This information is publicly available in ADAMS, Accession No. ML14318A070. Given the complexity of the topic and the wide interest amongst the nuclear industry and other Federal agencies, the staff does not expect that an implementable methodology supported by test-case analyses can be available for several years. Individual products may provide interim capabilities and specific insights for individual sites, but it is too early to project substantive utilization of this technology. The NRC staff appreciates the ACRS interest and support in the development and application of probabilistic techniques for flood hazard assessment. For detailed information on the progress of this research program, please contact Dr. William Ott, Chief of the Environmental Transport Branch, Division of Risk Analysis, in RES.

The staff appreciates the Committee's efforts on this matter. We thank the ACRS for its time and valuable input. We look forward to working with the Committee in the future.

Sincerely,

/RA/

Mark A. Satorius
Executive Director
for Operations

cc: Chairman Burns
Commissioner Svinicki
Commissioner Ostendorff
Commissioner Baran
SECY

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