

August 31, 2017

Mr. James A. Gresham, Manager
Regulatory Compliance and Plant Licensing
Westinghouse Electric Company
1000 Westinghouse Drive
Cranberry Township, PA 16066

SUBJECT: RESULTS OF THE U.S. NUCLEAR REGULATORY COMMISSION
REVIEW OF WESTINGHOUSE ELECTRIC COMPANY (WESTINGHOUSE)
CHANGES IN WESTINGHOUSE WCAP-8354-P-A (PROPRIETARY) AND
WCAP-8355-A (NON-PROPRIETARY), "LONG TERM ICE CONDENSER
CONTAINMENT CODE - LOTIC CODE" (CAC NO. MF9354)

Dear Mr. Gresham:

By letter dated February 1, 2017 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML17034A376), Westinghouse submitted information to the U.S. Nuclear Regulatory Commission (NRC) indicating that during an ongoing code maintenance of the LOTIC1 code used for the loss-of-coolant accident (LOCA) containment response for ice condenser containments, a discrepancy was discovered between the methodology described in topical reports (TRs) WCAP-8354-P-A and WCAP-8355-A and its implementation in the source code. The information included revised page number 5.2-6 of the above TRs. In this letter, Westinghouse also stated that it is not necessary to update the source code for resolving this issue because it would not result in an improved transient behavior or influence on the limiting time of the event nor increase in nuclear safety. The NRC staff reviewed the information in the Westinghouse letter and revised page 5.2-6 of the TR and requested additional information from Westinghouse.

By letter dated June 6, 2017 (ADAMS Accession No. ML17130A736), the NRC staff issued its request for additional information (RAI) questions asking Westinghouse to (1) perform a sensitivity analysis for the most bounding ice-condenser plant in the U.S. and (2) provide a quantitative impact of this change on the entire LOCA containment pressure response, including the peak pressure.

By letter dated July 5, 2017 (ADAMS Accession No. ML17195A259), "Westinghouse Submittal of RAI Response Regarding WCAP-8354-P-A (Proprietary) and WCAP-8355-A, (Non-Proprietary), 'Long Term Ice Condenser Containment Code - Lotic Code,'" Westinghouse responded to the NRC staff RAI questions by providing quantitative results of a sensitivity study performed by creating a temporary version of the LOTIC1 code consistent with its description in the TR. Using biased input data, Westinghouse analyzed the containment response for the sensitivity case based on the temporary version of LOTIC1 code and the base case based on the current version of the LOTIC1 code. Figures 1 through 4 in the Westinghouse RAI response letter referenced above shows practically insignificant difference between the graphs of containment pressure response, upper and lower containment compartment temperature responses, and the active sump water temperature response for the base case and the sensitivity case. Westinghouse stated that the peak pressure for the base case as 11.2053 psig and the sensitivity case as 11.1966 psig; a difference of 0.0087 psi.

Based on comparing the results of the sensitivity case with the base case, the NRC staff agrees with Westinghouse that an update of the LOTIC1 code for resolving the discrepancy between the source code and the methodology described in the TR would not result in an improved transient behavior or influence on the limiting time of the event nor it affects the nuclear safety. The NRC staff also agrees with the proposed changes in page number 5.2-6 of WCAP-8354-P-A and WCAP-8355-A, and requests that Westinghouse submit the updated versions of these TRs.

If you have any questions, please contact Ekaterina Lenning at 301-415-3151.

Sincerely,

/Serita Sanders Acting for RA/

Dennis C. Morey, Chief
Licensing Processes Branch
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

Project No. 700

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 DATED: AUGUST 31, 2017

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