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Our ref: LTR-NRC-25-11

March 12, 2025

**U.S. Nuclear Regulatory Commission  
10 CFR 50.46 Annual Notification and Reporting for 2024**

The purpose of this letter is to report the impact of changes or errors in the emergency core cooling system (ECCS) evaluation models used by Westinghouse Electric Company. A description of the changes to the Westinghouse small-break loss-of-coolant accident (LOCA) and large-break LOCA ECCS evaluation models for 2024 is provided as Attachment 1. Westinghouse has categorized these changes or errors into two separate groups as defined in Reference 1, which may include subgroups with or without peak cladding temperature (PCT) impact:

- Discretionary Changes with Negligible PCT Impact
- Non-Discretionary Changes with Negligible PCT Impact

This annual notification is being provided since it affects information previously submitted in Westinghouse topical reports. It is noted that plant-specific PCT variations are not addressed in this letter. These should be treated, as appropriate, on a plant-specific basis in accordance with the applicable sections of 10 CFR 50. Westinghouse notifies licensees utilizing these Westinghouse ECCS evaluation models in their plant licensing basis of the appropriate reportable changes.

For future referencing convenience, the 2024 10 CFR 50.46 reportable changes provided in Attachment 1, together with the 2023 formulation offered in Reference 2 constitutes the 2024 formulation of the Westinghouse ECCS evaluation models.

Sincerely,

A handwritten signature in black ink that reads "Jerrod Ewing".

Jerrod Ewing, Manager  
Licensing Engineering

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**References:**

1. ET-NRC-92-3755, "Westinghouse Methodology for Implementation of 10CFR50.46 Reporting," N. J. Liparulo, Westinghouse to NRC Document Control Desk, October 1992. (WCAP-13451)
2. LTR-NRC-24-6, "U.S. Nuclear Regulatory Commission 10 CFR 50.46 Annual Notification and Reporting for 2023," Z. S. Harper, March 2024.

**Attachment:**

1. Standard Format Text for Changes and Enhancements to the Westinghouse Evaluation Models for 2024 (6 pages, including cover page)

## **Attachment 1**

### **Standard Format Text for Changes and Enhancements to the Westinghouse Evaluation Models for 2024**

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**Discretionary Changes with Negligible PCT Impact**

- GENERAL CODE MAINTENANCE

**Non-Discretionary Changes with Negligible PCT Impact**

- STEAM/FISSION GAS SPECIFIC HEAT CALCULATION

**DISCRETIONARY CHANGES WITH NEGLIGIBLE PCT IMPACT**

## **GENERAL CODE MAINTENANCE**

### **Background**

Various changes have been made to enhance the usability of codes and to streamline future analyses. Examples of these changes include improving the input diagnostic checks; enhancing the code output; optimizing active coding; and eliminating inactive coding. These changes represent Discretionary Changes that will be implemented on a forward-fit basis in accordance with Section 4.1.1 of WCAP-13451.

### **Affected Evaluation Model(s)**

2016 Westinghouse **FULL SPECTRUM™** LOCA Evaluation Model

### **Estimated Effect**

The nature of these changes leads to an estimated peak cladding temperature impact of 0°F.

**NON-DISCRETIONARY CHANGES WITH NEGLIGIBLE PCT IMPACT**

**STEAM/FISSION GAS SPECIFIC HEAT CALCULATION****Background**

An error was identified in WCOBRA/TRAC-TF2 related to an incorrect specific heat value used in the calculation of superheated steam thermal conductivity as part of the post-burst pellet-to-cladding gap heat transfer calculation. The incorrect specific heat value results in the superheated steam thermal conductivity being slightly under-predicted at the burst node after rupture is predicted. This leads to a minimal reduction in the gap conductance and slight over-prediction of the fuel average temperatures at the rod burst location after burst is predicted. This error represents a Non-Discretionary Change in accordance with Section 4.1.2 of WCAP-13451.

**Affected Evaluation Model(s)**

2016 Westinghouse FULL SPECTRUM LOCA Evaluation Model

**Estimated Effect**

The deficiency was qualitatively evaluated, and the nature of the error leads to an estimated peak cladding temperature impact of 0°F.