

November 20, 2013

Mr. Keith J. Drudy, Manager
Nuclear Services
Westinghouse Electric Company
1000 Westinghouse Drive
Cranberry Township, PA 16066

SUBJECT: AUDIT PLAN FOR REVIEW OF REVISED CALCULATIONS FOR THE
CORE REFERENCE REPORT WCAP-17524

Dear Mr. Drudy:

The U.S. Nuclear Regulatory Commission (NRC) staff has prepared an audit plan related to the review of the Westinghouse revised calculations relative to the assumed single failure assumption in the AP1000® Pressurized Water Reactor Small Break Loss of Coolant Analysis, for the Core Reference Report technical review. The audit plan describes the scope and purpose of the audit, identifies the audit team, and describes the documents required by the NRC staff. The audit plan is enclosed.

The audit will take place at the Westinghouse Offices, Twinbrook Building, 12300 Twinbrook Parkway, Rockville, Maryland, on November 25-26, 2013.

If you have any questions, please contact the Project Manager, Bruce Baval, at (301) 415-6715 or Bruce.Baval@nrc.gov.

Sincerely,

/RA/

Lawrence J. Burkhart, Chief
Licensing Branch 4
Division of New Reactor Licensing
Office of New Reactors

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NAME	BBaval	RButler*	LBurkhart
DATE	11/19/13	11/19/13	11/20/13

OFFICIAL RECORD COPY

**Audit Plan Related to the Review of the Westinghouse Revised Calculations
Relative to the Assumed Single Failure Assumption In
The AP1000® Pressurized Water Reactor Small Break Loss of Coolant Analysis
Core Reference Report Topical Report WCAP-17524
Westinghouse Electric Company
Project No. 0793
November 25-26, 2013**

A. Location:

This audit will be conducted in the afternoon on Monday, November 25 and finish up (if needed) the morning of November 26, 2013, at the following location:

Westinghouse Offices
Twinbrook Building
12300 Twinbrook Parkway
Rockville, MD 20852

B. Background

Westinghouse submitted topical report, "AP1000 Core Reference Report," for U.S. Nuclear Regulatory Commission (NRC) staff review and approval on March 6, 2012. Westinghouse notified the NRC in July 2013 that the SBLOCA analysis was being revised due to the resolution of a corrective action process (CAP) issue. In September 2013, the staff attended a closed meeting at the Westinghouse Rockville office for a clarification meeting regarding the SBLOCA analysis error.

The staff determined it is necessary to further review the supporting documentation related to the revised SBLOCA analysis for WCAP-17524. This review will assist the staff in understanding the revised analysis.

C. Regulatory Audit Bases

General Design Criterion 35, "Emergency Core Cooling"

10 CFR 50.46, "Acceptance criteria for emergency core cooling systems for light-water nuclear power reactors"

D. Regulatory Audit Scope

The audit team will review the supporting documentation related to the revised SBLOCA analysis presented in WCAP-17524-P.

Enclosure

E. Information and Other Material Necessary for the Regulatory Audit

The staff requires access to personnel with a working knowledge of the revised Westinghouse Core Reference Report SBLOCA analysis. Additionally, the staff requests access to the calc notes used to support the revised SBLOCA analysis and documentation related to any codes used in the analysis with particular emphasis on any changes to approved codes.

The staff expects discussions to include (but not be limited to):

- Justification of input values (e.g., outside air temperature) used in minimum containment pressures calculations
- Interface between LOCA minimum containment pressure and maximum containment backpressure calculations
- Impact of ongoing review of Inorganic Zinc liner thermal conductivity assumptions

F. Team Assignments

Chris Van Wert, Reactor Systems Engineer, NRO (Audit Team Lead)
Diego Saenz, Reactor Systems Engineer, NRO
Bruce Baval, Project Manager, NRO

G. Logistics

The audit will be conducted at the Westinghouse facility located in Rockville, Maryland. The audit is scheduled to begin at 11:30 a.m. on Monday, November 25, 2013, and will conclude at 3:30 p.m. If a Tuesday continuation is required, the start time will be 9:00 a.m. on Tuesday, November 26, 2013, and will conclude by 11:00 a.m. Participating individuals will meet at the audit location.

H. Special Requests

Appropriate handling and protection of proprietary information shall be acknowledged and observed throughout the audit.

NRC may request an ad-hoc extension of the audit if findings during the ongoing audit reveal the need for additional time. Such an extension will be requested before the audit is adjourned by the audit team lead.

I. Deliverables

The audit team will issue a regulatory audit summary within 90 days after completing the audit. The audit outcome will be used to identify any additional information to be submitted for making regulatory decisions. The audit will assist the NRC staff in the preparation and issuance of the Safety Evaluation Report for the licensing review of WCAP-17524-P.

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cc:

(Revised 10/28/2013)

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