

January 10, 2018

MEMORANDUM TO: Dennis C. Morey, Chief
Licensing Processes Branch
Division of Licensing Projects
Office of Nuclear Reactor Regulation

FROM: Ekaterina Lenning, Project Manager */RA/*
Licensing Processes Branch
Division of Licensing Projects
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF CLOSED AUDIT FOR THE WESTINGHOUSE
ELECTRIC COMPANY TOPICAL REPORT WCAP-18032-P,
REVISION 0 AND WCAP-18032-NP, REVISION 0, "CALCULATION OF
MIXED CORE SAFETY LIMIT MINIMUM CRITICAL POWER RATIO"
(TAC NO. MF9017)

On October 17-18, 2017, a closed audit was conducted by U.S. Nuclear Regulatory Commission (NRC) staff at the Westinghouse Electric Company (Westinghouse) in Cranberry Township, PA, to review and discuss proprietary information related to the review of the WCAP-18032-P, Revision 0 and WCAP-18032-NP, Revision 0, "Calculation of Mixed Core Safety Limit Minimum Critical Power Ratio," topical report (TR). As a result of the audit draft requests for additional information (RAI) questions were sent to Westinghouse via encrypted email on November 2, 2017, to give opportunity to Westinghouse review and provide proprietary markings before the NRC staff issued final RAI questions.

Docket No. 99902038

CONTACT: Ekaterina Lenning, NRR/PLPB
301-415-3151
Ekaterina.Lenning@nrc.gov

SUBJECT: SUMMARY OF CLOSED AUDIT FOR THE WESTINGHOUSE

ELECTRIC COMPANY TOPICAL REPORT WCAP-18032-P,
 REVISION 0 AND WCAP-18032-NP, REVISION 0, "CALCULATION OF
 MIXED CORE SAFETY LIMIT MINIMUM CRITICAL POWER RATIO"
 (TAC NO. MF9017) DATED: JANUARY 10, 2018

DISTRIBUTION:

PUBLIC	RidsNrrDlpPlpb
RidsNrrLADHarrison	RidsOgcMailCenter
RidsACRS_MailCTR	RidsNrrDss
RLukes	BParks
RidsNrrDlp	RidsNroOd
RidsResOd	RidsNrrDssStsb
DMorey	ELenning

ADAMS Accession No.: ML17352A640; *concurrence via e-mail

NRC-001

OFFICE	DLP/PLPB/PM	DLP/PLPB/LA*	DSS/SNPB/BC*	DLP/PLPB/BC*	DLP/PLPB/PM
NAME	ELenning	DHarrison	RLukes	DMorey	ELenning
DATE	12/18/2017	12/28/2017	1/4/2018	1/5/2018	1/10/2018

OFFICIAL RECORD COPY

U.S. NUCLEAR REGULATORY COMMISSION

SUMMARY OF CLOSED AUDIT FOR THE WESTINGHOUSE ELECTRIC COMPANY

TOPICAL REPORT WCAP-18032-P, REVISION 0 AND WCAP-18032-NP, REVISION 0,

"CALCULATION OF MIXED CORE SAFETY LIMIT MINIMUM CRITICAL POWER RATIO"

1.0 INTRODUCTION

By letter dated December 12, 2016, Westinghouse Electric Company (Westinghouse) submitted WCAP-18032-P, Revision 0, and WCAP-18032-NP, Revision 0, "Calculation of Mixed Core Safety Limit Minimum Critical Power Ratio," topical report (TR) for the U. S. Nuclear Regulatory Commission (NRC) review and approval. In September 2017, the NRC staff informed Westinghouse of its intent to conduct a regulatory audit. The main purpose of the audit was for the NRC technical reviewer to better understand the TR and to have an opportunity to ask Westinghouse representatives clarifying questions regarding the information contained within the submittal. After a detailed review of the TR, the NRC staff developed 202 comprehension questions that required clarification before request for additional information (RAI) questions could be drafted. Therefore, the NRC staff conducted a closed audit of understanding for the WCAP-18032-P, Revision 0, and WCAP-18032-NP, Revision 0, TR review, between October 17 and 18, 2017, at the Westinghouse facilities in Cranberry Township, Pennsylvania.

2.0 AUDIT TEAM

Joshua Kaizer (NRC)
Kevin Heller (NRC)

3.0 AUDIT RESULTS

Discussion of Topical Report

The audit consisted of a detailed walkthrough of WCAP-18032-P, Revision 0, and WCAP-18032-NP, Revision 0. The NRC staff used this opportunity to resolve 202 comprehension questions which were developed from an earlier extensive study of TR. Westinghouse provided explanations for the comprehension questions, enabling the NRC staff to identify nine specific areas of concern that would allow them to draft RAI questions.

Generation of RAI Questions

Westinghouse was able to clarify information contained in TR during the audit. However, the NRC staff believes that most of the pertinent information presented during the audit was not reflected in the submittal. Therefore, the NRC staff proposed to have two rounds of RAI questions. The first round of RAI questions focuses specifically on the proprietary information discussed during the audit that is essential for the NRC staff's review and is not contained within the submittal. The draft RAI questions were provided to Westinghouse for review and proprietary determination on November 2, 2017, via encrypted email. After responses to formal RAI questions are submitted, the NRC staff will review them and make a decision if a second round of RAI questions is needed in order to complete NRC draft safety evaluation. Westinghouse agreed with this course of action.

Enclosure

4.0 PARTICIPANTS

<u>NAME</u>	<u>ORGANIZATION</u>
Joshua Kaizer	NRC
Kevin Heller	NRC
Eric Frantz	Westinghouse
Bradley Maurer	Westinghouse
Anghel Enica	Westinghouse
Uffe Bergman	Westinghouse
Jean-Marie Le Corre	Westinghouse
Kaj Thorselius	Westinghouse
Patricia Quaglia	Westinghouse
Scott Vrtiska	Westinghouse