

RESOLUTION OF COMMENTS ON DRAFT SAFETY EVALUATION FOR
TOPICAL REPORT WCAP-18124-NP, REVISION 0, "FLUENCE DETERMINATION
WITH RAPTOR-M3G AND FERRET"
WESTINGHOUSE ELECTRIC COMPANY

By letter dated May 8, 2018 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML18134A283), Westinghouse Electric Company (Westinghouse) provided comments on the draft safety evaluation (SE) for Topical Report (TR) WCAP-18124-NP, Revision 0, "Fluence Determination with RAPTOR-M3G and FERRET." Westinghouse stated that there is no proprietary information in the draft SE. The following is the U.S. Nuclear Regulatory Commission (NRC) staff's resolution of these comments:

Draft SE comments for TR WCAP-18124-NP, Revision 0:

1. Westinghouse provided the following comment:

First, it is noted that concerns for the limits of applicability are discussed relative to the extended beltline region (EBR) while there is no discussion relative to limitations on applicability to reactor vessel internals (RVI).

NRC Resolution for Comment 1 on Draft SE

The NRC staff has reviewed the Westinghouse comment and agrees that additional clarification is needed. The NRC staff has updated the third sentence in the first paragraph of Section 1.0, "Introduction," and the second sentence of the Limitation 1 in Section 4.0, "Limitations and Conditions."

Third sentence of the first paragraph of Section 1.0, "Introduction," reads now:

During the call, Westinghouse clarified that the fluence calculational methodology submitted in WCAP-18124-NP, Revision 0, is intended for reactor pressure vessel (RPV) beltline fluence estimation in general, but agreed with NRC staff that it provides limited information to support fluence evaluations for extended beltline region and reactor vessel internal components on a generic basis.

The second sentence of the Limitation 1 in Section 4.0, "Limitations and Conditions," reads now:

Additional justification should be provided via additional benchmarking, fluence sensitivity analysis to response parameters of interest (e.g., pressure-temperature limits, material stress/strain), margin assessment, or a combination thereof, for applications of the method to components including, but not

limited to, the RPV upper circumferential weld and reactor coolant system inlet and outlet nozzles, and reactor vessel internal components.

2. Westinghouse provided the following comment:

Also, the draft SE states in part, " ... but agreed with NRC staff that it provides limited information to support fluence evaluations for *license renewal applications* {emphasis added} on a generic basis." Westinghouse agrees that the WCAP provides limited information to support fluence evaluations relative to the EBR or RVIs; however, it is unclear if that limitation is exclusive to license renewal applications.

NRC Resolution for Comment 2 on Draft SE

The NRC staff has reviewed the Westinghouse comment and notes that additional clarification is needed. The NRC staff has updated third sentence in the first paragraph of Section 1.0, "Introduction," to clarify the NRC staff's position.

Third sentence of the first paragraph of Section 1.0, "Introduction," reads now:

During the call, Westinghouse clarified that the fluence calculational methodology submitted in WCAP-18124-NP, Revision 0, is intended for reactor pressure vessel (RPV) beltline fluence estimation in general, but agreed with NRC staff that it provides limited information to support fluence evaluations for extended beltline region and reactor vessel internal components on a generic basis.

3. Westinghouse provided the following comment:

"Additional justification may be required for applications of the method to components including, but not limited to, the RPV upper circumferential weld and reactor coolant system inlet and outlet nozzles." Typically the NRC expects licensees to delineate how the limitations and conditions have been met. For Limitation 1, the licensee would state something similar to, "Limitation 1 has been met pending any additional information requested by the NRC."

NRC Resolution for Comment 3 on Draft SE

The NRC staff reviewed the Westinghouse comment. The NRC staff updated second sentence of the Limitation 1 in Section 4.0, "Limitations and Conditions," to clarify the NRC staff's position:

Additional justification should be provided via additional benchmarking, fluence sensitivity analysis to response parameters of interest (e.g., pressure-temperature limits, material stress/strain), margin assessment, or a combination thereof, for

applications of the method to components including, but not limited to, the RPV upper circumferential weld and reactor coolant system inlet and outlet nozzles and reactor vessel internal components.