



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

March 30, 2020

Mr. W. Anthony Nowinowski  
Executive Director  
PWR Owners Group,  
Program Management Office  
Westinghouse Electric Company  
1000 Westinghouse Drive, Suite 380  
Cranberry Township, PA 16066

SUBJECT: FINAL SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION FOR THE PRESSURIZED WATER REACTOR OWNERS GROUP TOPICAL REPORT PWROG-17031-NP, REVISION 1, "UPDATE FOR SUBSEQUENT LICENSE RENEWAL: WCAP-15338-A, 'A REVIEW OF CRACKING ASSOCIATED WITH WELD DEPOSITED CLADDING IN OPERATING PWR PLANTS'" (EPID L-2018-TOP-0022)

Dear Mr. Nowinowski:

By letter dated May 31, 2018 (Agencywide Documents Access and Management System Accession No. (ADAMS Accession No. ML18164A025), the Pressurized Water Reactor Owners Group (PWROG) submitted Topical Report (TR) PWROG-17031-NP, Revision (Rev.) 1, "Update for Subsequent License Renewal: WCAP-15338-A, 'A Review of Cracking Associated with Weld Deposited Cladding in Operating PWR [pressurized water reactor] Plants,'" dated May 31, 2018 (ADAMS Accession No. ML18164A035) for the U.S. Nuclear Regulatory Commission (NRC) review and approval. Additional information related to PWROG-17031-NP, Rev. 1, was submitted by letter dated August 29, 2019 (ADAMS Accession No. ML19253B327), in response to a request for additional information (RAI) from the NRC staff. By letter dated December 5, 2019 (ADAMS Accession No. ML19347A422), the PWROG submitted comments to the draft safety evaluation (SE) and requested that the NRC prepare the final SE for PWROG-17031-NP against Rev. 1.

The NRC staff has completed its review of PWROG-17031-NP, Rev. 1, and found that the subject report, as modified by the conditions and limitations summarized in Section 4.0 of the enclosed final SE provides the technical and regulatory basis to extend the applicability of the reactor pressure vessel (RPV) underclad crack analysis methodology in WCAP-15338-A from 60 to 80 years of operation to support applications for subsequent license renewal (SLR) for all U.S. Westinghouse plants.

As stated in PWROG's submittal letter dated May 31, 2018, licensees will reference the TR PWROG-17031-NP, Rev. 1, in SLR applications to demonstrate compliance with Title 10 of the *Code of Federal Regulations* (10 CFR) 54.21( c )(1), for the appropriate findings regarding the evaluation of time-limited aging analysis for the RPV components through the SLR period of operation (80 years). Applicants who utilize the TR will be required to adhere to the conditions that the NRC staff impose in the SE and shall be subject to NRC staff review and approval on a case-by-case basis.

By letter dated October 29, 2019 (ADAMS Accession No. ML19300A002), the NRC staff provided the draft SE to the PWROG for review and comment. By letter dated December 5, 2019 (ADAMS Accession No. ML1922A259), the PWROG provided comments on the draft SE. The NRC staff's disposition table for the draft SE comments is provided in the final SE.

In accordance with the guidance provided on the NRC website, the NRC staff requests that the PWROG publish approved versions of PWROG-17031-NP, Rev. 1, within 3 months of receipt of this letter. The approved version shall incorporate this letter and the enclosed final SE after the title page. Also, the approved versions must contain historical review information, including NRC requests for additional information (RAIs) and the corresponding RAI responses. The approved versions shall include an "-A" (designating approved) following the TR identification symbol. As an alternative to including the request for RAIs and RAI responses behind the title page, if changes to the TR were provided to the NRC staff to support the resolution of RAI responses, and if the NRC staff reviewed and approved those changes as described in the RAI responses, there are two ways that the accepted version can capture the RAIs:

1. The RAIs and RAI responses can be included as an appendix to the accepted version.
2. The RAIs and RAI responses can be captured in the form of a table (inserted after the final SE) which summarizes the changes as shown in the approved version of the TR. The table should reference the specific RAIs and RAI responses which resulted in any changes, as shown in the accepted version of the TR.

If future changes to the NRC's regulatory requirements affect the acceptability of these TRs, PWROG will be expected to revise the TRs appropriately or justify their continued applicability for subsequent referencing. Licensees referencing these TRs would be expected to justify their continued applicability or evaluate their plant using the revised TRs.

If you have any questions, please contact Leslie Fields at 301-415-1186.

Sincerely,

/RA/

Dennis C. Morey, Chief  
Licensing Processes Branch  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 99902037

Enclosure:  
Final SE – Nonproprietary

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**ADAMS Accession Nos.:****ML20085F669 -Package****ML20085F603 -Cover Letter****ML20085F644 -Enclosure****\*via email**

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