

U.S. NUCLEAR REGULATORY COMMISSION SUMMARY OF THE JULY 11, 2024.
OBSERVATION PREAPPLICATION PUBLIC MEETING
WITH SMR, LLC (A HOLTEC INTERNATIONAL COMPANY)
TO DISCUSS THE SMR-300 ENVIRONMENTAL QUALIFICATION PROGRAM

Meeting Summary

The U.S. Nuclear Regulatory Commission (NRC) held an observation public meeting on July 11, 2024, with SMR, LLC (SMR), a Holtec International Company (Holtec), to discuss preapplication information related to the operational programs for the SMR-300 design.¹ SMR (Holtec) provided presentation slides to discuss during the public meeting.² This meeting summary satisfies the applicant's request for review and feedback on its preapplication meeting materials.

This virtual observation preapplication meeting had attendees from SMR, (Holtec), NRC staff, and members of the public.

Preapplication engagements, including this meeting, provide an opportunity for the NRC staff to engage in early discussions with a prospective applicant, to offer licensing guidance, and to identify potential licensing issues early in the licensing process. No decisions or commitments were made during the preapplication meeting.

The following summarizes the discussion during the meeting:

- SMR (Holtec) opened its presentation with an overview of the agenda and described the purpose of the meeting as a high-level overview of its approach and methodology for the SMR-300 Environmental Qualification (EQ) program for safety-related mechanical, electrical, and Instrumentation and Control equipment. The desired outcome of the meeting was to obtain NRC staff feedback on its approach and methodology.
- On slide 6, the NRC staff noted that Institute of Electrical and Electronic Engineers could include structures, systems, and components beyond Class 1E Equipment. SMR (Holtec) responded that Class 1E is used as an abbreviation.
- SMR (Holtec) requested clarification regarding the apparent scope expansion in revision 2 to Regulatory Guide (RG) 1.89. The NRC staff responded that the scope related to 10 CFR 50.49 has not changed but that more information has been added to help users qualify equipment including areas outside the scope of 10 CFR 50.49. The staff also clarified that mild environment is not within the scope of 10 CFR 50.49. The

¹ Letter from A. Brenner, "SMR, LLC Preapplication Meeting Material for July 11, 2024," dated June 21, 2024, Agencywide Documents and Access Management System (ADAMS) Accession No. ML24173A247 part of package ML24173A246.

² SMR, LLC, "SMR, LLC, Environmental Qualification Program SMR-300," dated July 11, 2024, ML24173A248, part of package ML24173A246.

NRC staff noted that they gave a presentation that outlines the updates in RG 1.89, Revision 2 and that they would provide the link to the document for SMR (Holtec).^{3,4}

- The NRC staff stated that SMR (Holtec) would need to justify the use of commercial EQ data where SMR (Holtec) is relying on such data for safety-related applications. SMR (Holtec) clarified that the data is not necessarily “commercial,” but publicly available information from vendors who have qualified equipment for other reactors under 10 CFR 50.49.
- The NRC staff requested clarification on the scope of the EQ program and compliance with General Design Criteria (GDC) 4. The NRC staff asked SMR (Holtec) to clarify its usage of EQ, stating that sometimes EQ means environmental qualification while other times EQ is used for equipment qualification. SMR (Holtec) responded that the purpose of the meeting was to discuss environmental qualification.
- The staff noted that the SMR (Holtec) proposed approach to conform with long-term reliability would need to meet GDC 4. The staff noted and SMR (Holtec) agreed that equipment in the mild environment will need to be addressed with respect to meeting GDC 4 for the SMR-300 design.
- SMR (Holtec) asked if there was an anticipated issuance date for Revision 4 of the Standard Review Plan, Section 3.11. The NRC staff responded that there is no issuance date at this time.⁵
- In response to a question proposed by the NRC staff, SMR (Holtec) stated that while this presentation focused on environmental qualification for electrical equipment per 10 CFR 50.49, SMR (Holtec) intends for the full equipment qualification program to qualify all required mechanical, electrical and instrumentation & control equipment in accordance with the applicable regulations for environmental, seismic, and functional requirements.

There were no comments or questions from members of the public.

The meeting adjourned at 9:44 am.

³ U.S. Nuclear Regulatory Commission, Regulatory Guide 1.89, “Environmental Qualification of Certain Electric Equipment Important to Safety for Nuclear Plants,” Revision 2, April 2023.
<https://www.nrc.gov/docs/ML2206/ML22060A287.html>

⁴ U.S. NRC, Presentation, “Presentation on Regulatory Guide 1.89, “Environmental Qualification of Certain Electric Equipment Important to Safety for Nuclear Power Plants,” Revision 2,” dated May 17, 2024, ML24138A064.

⁵ U.S. NRC, NURGEG-0800, “Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants: LWR Edition,” Section 3.11, “Environmental Qualification of Mechanical and Electrical Equipment,” Draft Revision 4, December 2017.