U.S. NUCLEAR REGULATORY COMMISSION SUMMARY OF THE NOVEMBER 29, 2023, OBSERVATION PREAPPLICATION PUBLIC MEETING WITH SMR, LLC (A HOLTEC INTERNATIONAL COMPANY) TO DISCUSS THE HOLTEC SMR PRELIMINARY SAFETY ANALYSIS REPORT CHAPTER 16 TECHNICAL SPECIFICATIONS CONTENT

Meeting Summary

The U.S. Nuclear Regulatory Commission (NRC) held an observation public meeting on November 29, 2023, with SMR, LLC (SMR), a Holtec International Company (Holtec), to discuss the HOLTEC SMR Preliminary Safety Analysis Report Chapter 16 Technical Specifications Content.[1] SMR (Holtec) provided presentation slides to support the discussion during the public meeting.[2] This meeting summary satisfies the SMR (Holtec) 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. A closed session for the meeting was not conducted as all meeting materials and discussions were nonproprietary.

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 open session of the meeting:

The open session started at 1:30 PM.

- Following the NRC staff's opening remarks and introductions, SMR (Holtec) opened its presentation with the meeting agenda, purpose, and desired outcome of the meeting. The purpose was to present the scope, content, and format for the SMR (Holtec) Preliminary Safety Analysis Report (PSAR) Chapter 16 Technical Specifications (TS), and the desired outcome was to align with the NRC staff on the level of detail for the SMR (Holtec) PSAR Chapter 16.

- The meeting discussions followed closely with the subject matter in the meeting materials. SMR (Holtec) reviewed regulations, guidance, and prior feedback from the NRC staff that fully developed TS are not expected during the construction permit (CP) application stage. SMR (Holtec) identified items to potentially be the subject of TS

[1] Letter from A. Brenner, "Submittal of SMR, LLC Preapplication Meeting Materials for November 29, 2023)," dated November 15, 2023, Agencywide Documents and Access Management System (ADAMS) Accession No. (ML23319A434), part of (ML23319A433).

[2] SMR, LLC, Enclosure 1: "SMR, LLC Meeting Presentation Materials for November 29, 2023" November 29, 2023, (ML23319A435), part of (ML23319A433).

requirements for the categories as stated in 10 CFR 50.36(c)[3], and proposed PSAR Chapter 16 TS documentation.

- The NRC staff pointed out that PSAR Chapter 16 TS content typically include design features (such as high-level details on fuel cladding, fuel assembles, fuel pool requirements, and fuel enrichment), programs and reports related to administrative controls and TS implementation, and testing (such as leak rates for containment, ventilation filters, control room requirements, and steam generator integrity). The NRC staff added that the goal of the PSAR content at the CP stage is to provide sufficient detail to identify significant features, programs, reports, and tests that are subject to TS requirements.. The PSAR content also provides an indication that the design development is on track to provide a complete set of TS as the operating license (OL) stage. In cases where plant safety-related surveillances overlap with programs (such as leak rate testing),the NRC staff recommended providing TS Surveillance detail and the associated limiting condition of operation (LCO).

- The NRC staff clarified with SMR (Holtec) that safety limits, as required by 10 CFR 50.36 will be included in the PSAR at the CP stage.[4] SMR (Holtec) added that their strategy going into the CP stage is to meet general design requirements under 10 CFR 50.34(a) (PSAR) as opposed to more comprehensive requirements under 50.34(b) Final Safety Analysis Report (FSAR) for the OL stage.[5, 6] The NRC staff agreed with this strategy and recommended identifying as much as possible and aligning with the required contents of the TS at the CP stage and avoiding significant or impactful changes at the OL stage.

- The NRC staff encouraged SMR (Holtec) to include instrumentation functions (example rector trip, shielding and fuel assembly), sensors for Limiting Safety System Settings, and inputs for system actuation and accident analysis in the PSAR, to the extent that details are known at the CP stage. SMR (Holtec) acknowledged and added that their design safety analysis and instrumentation and controls (I&C) design should be complete at the CP stage, with I&C significantly following industry standards.

- SMR (Holtec) provided a refueling operation example for FSAR TS level of detail, and the NRC staff recommended to also include LCO selection criteria.

- SMR (Holtec) indicated that the revised design for increased power capacity would likely be presented to the NRC in early second quarter of 2024, around the April or May time frame. Increasing capacity would involve most of the same design with additional pumps and features more akin to a regular pressurized-water reactor design.

- SMR (Holtec) clarified that the Split Report[7] was considered for TS inclusion criteria as the report contains additional useful insights not incorporated in standard TS. The split

---

[3] Title *10* of the *Code of Federal Regulations* (CFR), 10 CFR 50.36(c), “Technical Specifications Categories.”

[4] 10 CFR 50.36, “Technical Specifications.”

[5] 10 CFR 50.34(a), “Contents of applications; technical information,” Preliminary safety analysis report.

[6] 10 CFR 50.34(b), “Contents of applications; technical information,” Final safety analysis report.

[7] U.S. NRC, Letter from T. E. Murley to the Nuclear Steam Supply System vendor-owner groups, “NRC Staff Review of Nuclear Steam Supply System Vendor Owners Groups' Application of the Commission's Interim Policy Statement Criteria to Standard Technical Specifications,” May 9, 1988, (ML11264A057).

report provides the results of the NRC staff's review of the nuclear steam supply system vendor-owner groups' application of the Commission's interim policy statement criteria to the existing standard technical specifications LCOs.

The open session ended at 2:03 PM.

There was no closed session for the meeting.