

U.S. NUCLEAR REGULATORY COMMISSION
SUMMARY OF THE MAY 23, 2025, PREAPPLICATION PUBLIC MEETING WITH DOMINION
ENERGY SERVICES, INC. TO DISCUSS THE DOMINION ENERGY EARLY SITE PERMIT
RENEWAL APPROACH DRAFT WHITE PAPER

Meeting Summary

The U.S. Nuclear Regulatory Commission (NRC) held an observation public meeting on May 23, 2025, with Dominion Energy Services, Inc. (Dominion Energy), to discuss the draft white paper of its North Anna early site permit (ESP) renewal approach.^{1,2} 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 Dominion Energy, NRC staff, and members of the public. There was no closed session to discuss proprietary information.

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:

- Following the introductions of both the NRC staff and Dominion Energy staff, Dominion Energy presented its ESP renewal approach outlined in its draft white paper. The desired outcome of the meeting was to obtain NRC staff feedback and use the feedback to update the final version of the white paper.
- Dominion Energy provided background on this effort stating that the ESP application for the North Anna Power Station (NAPS) site was initially submitted in September 2003, and received the early site permit, ESP-003, from the NRC in November 2007. Additionally, Dominion Energy explained that it plans to submit its renewal application prior to November 27, 2026, and seeks a permit renewal duration of 20 additional years.
- The staff asked if there would be one comprehensive package that includes the original ESP and its amendments, stating that it would be helpful to provide a comprehensive review. Dominion Energy affirmed their understanding of the staff's feedback.
- Dominion Energy discussed its regulatory approach for renewing ESP-003, prioritizing changes since the original ESP. Dominion Energy stated that it does not anticipate that it

¹ Dominion Energy Services, Inc., Draft White Paper "Draft White Paper - Dominion Energy ESP Renewal Approach (Project No. 99902135)," dated May 23, 2025, Agencywide Documents and Access Management System (ADAMS) Accession No. ML25134A007 part of ML25134A005.

² Dominion Energy Services, Inc., Presentation "Presentation - Dominion Energy ESP Renewal Approach (Project No. 99902135)," dated May 9, 2025, ML25134A006, part of ML25134A005.

will be necessary to modify the plant parameter envelope (PPE), the environmental measurement and monitoring program, and the site redress plan. However, Dominion Energy did acknowledge that updates related to population, demographic, and meteorological data may be required.

- Dominion Energy then discussed its anticipated timeline for upcoming submittals, stating that it plans to have a pre-application meeting in late 2025 or early 2026. Dominion also stated that it plans to submit its ESP renewal application in Q2 of 2026 with the renewal being issued in Q1 of 2027. Dominion clarified that these dates are in calendar years.
- Before discussing the draft white paper, Dominion Energy concluded the presentation portion by stating its intent to work collaboratively with the NRC to receive a timely review.
- Dominion responded to the staff's question stating that it does not expect significant changes to its evacuation time estimates.
- Dominion responded to the staff's question stating that at this point it is not ready to discuss in detail which aspects of Chapter 11, "Radioactive Waste Management," might require updates, but that this information would be included in the new and significant review.
- The staff asked whether Dominion intends to change to a site boundary emergency planning zone (EPZ). Dominion stated that while its approach remains dependent on reactor selection, its draft white paper (Section 13.3 and Attachment 1) currently proposes maintaining a site boundary EPZ and submitting major features of an emergency plan in accordance with 10 CFR 52.17(b)(2)(i). Dominion clarified its intention to maintain the technical aspects of the existing ESP and that the ESP application would likely not alter the EPZ to imply a site boundary EPZ. Dominion also noted that it does not intend to submit a complete and integrated emergency plan under 10 CFR 52.17(b)(2)(ii). The staff reiterated that if Dominion ultimately references a small modular reactor (SMR) as defined in 10 CFR 50.2, it may elect to follow either 10 CFR 50.160 or 10 CFR 50.47 and Appendix E to Part 50.
- On PDF page 99 of the draft white paper, Dominion clarified to the staff that it does not intend to submit Inspections, Test, Analysis, and Acceptance Criteria in the ESP renewal application.
- The staff explained the importance of early engagement with emergency planning (EP) staff once further design information becomes available because 10 CFR 50.160 includes different requirements and guidance from 10 CFR 50.47 and Appendix E to Part 50. Dominion stated in its white paper (Section 13.3) that it intends to assess the extent to which EP content from NAPS Units 1 and 2 may be leveraged in the ESP renewal. The staff emphasized that pre-application interactions and, ideally, a readiness assessment would be beneficial to confirm whether the proposed approach, including referencing existing emergency plan content and maintaining a site-boundary EPZ, is consistent with applicable requirements.

- Dominion responded to the staff's question about PDF page 19 of the draft white paper, stating that changes made to the existing ESP-003 may be addressed using the 10 CFR 50.90 process, but that it is entertaining multiple options.
- The staff had a question about Dominion's use of "may be updated" versus "should be updated" throughout the white paper. Dominion acknowledged that greater clarity could be provided and will revise language in Section 13.3 to clearly distinguish between discretionary updates and those that are necessary for compliance with 10 CFR 52.17(b)(1), including updates to evacuation time estimates and population/demographic data.
- Staff explained that the feedback on the white paper would be captured in the meeting summary but if additional feedback was desired, Dominion would need to request that. Additionally, the staff pointed out that Dominion's white paper is labeled draft which gives the impression that they will be submitting a final version of their white paper. Dominion stated that they are taking into account feedback received during the meeting and any additional feedback that may be provided.
- Dominion acknowledged the staff's comment about details lacking from the appendices.
- Dominion stated that at this time it cannot publicly comment on the timeline for when, or if, it plans to switch from current large light-water reactor (LLWR) technology to SMR technology. Dominion also stated that the NAPS Unit 3 Combined License (COL), which references LLWR technology, contains newer information compared to ESP-003, and will be used as a reference for the ESP renewal application. Additionally, Dominion stated that the PPE for the NAPS Unit 3 COL is comprehensive for multiple reactor technologies.
- The staff commented that geotechnical information should be reviewed by Dominion Energy to ensure it is still current.
- Dominion responded to the staff's questions stating that it does intend to engage with stakeholders and in public outreach activities.
- The staff acknowledged Dominion's planned environmental approach but clarified that an environmental assessment (EA) is a decisional document; the NRC uses the EA to determine if an environmental impact statement (EIS) is necessary based on if there are potential significant impacts to the human environment.

Following the business portion of the meeting, there were comments from the Breakthrough Institute and the Nuclear Energy Institute (NEI).

- A commenter from the Breakthrough Institute stated he appreciated the staff's efforts to be consistent with the NRC's new mission statement, which highlights efficiency.
- A commenter from NEI asked whether there is a publicly available document that provides guidance on EA vs EIS determinations. The staff responded that such guidance is internal. The commenter then inquired whether and how the draft Generic Environmental Impact Statement for advanced reactors might be leveraged in the ESP renewal context. The staff explained that a working group is addressing this issue and

planning future engagements. The commenter concluded by asking whether an emergency plan could be deferred until a future construction permit or combined license application, rather than being submitted with the ESP renewal. The staff confirmed that an emergency plan is not required during the ESP application phase.

The meeting adjourned at 11:26 am.