John Klos

From: John Klos
Sent: Thursday, July 6, 2023 10:20 AM
To: gary.d.miller@dominionenergy.com
Cc: John Klos
Subject: Surry TSC RAIs, formal release due Monday August 7, 2023

Gary,

The following RAIs for Surry TSC relocation are released formally for a 30 day response post a clarification call that was held July 5, 2023 with Surry Dominion staff.
These RAIs are due 32 calendar days from today on Monday August 7, 2023.

REQUEST FOR ADDITIONAL INFORMATION
RELATED TO
LICENSE AMENDMENT REQUEST TO REVISE
THE EMERGENCY PLAN
VIRGINIA ELECTRIC AND POWER COMPANY

SURRY POWER STATION
DOCKET NOS. 50-280 AND 50-281

By application dated November 18, 2022 (Agencywide Documents Access and Management System Accession No. ML22322A182), Virginia Electric and Power Company (Dominion Energy Virginia) submitted a license amendment request to revise the Emergency Plan for Surry Power Station, Units 1 and 2 , to the U.S. Nuclear Regulatory Commission (NRC) for review and prior approval pursuant to Section 50.54(q) of Title 10 of the Code of Federal Regulations (10 CFR). Specifically, the proposed change will relocate the Technical Support Center (TSC) from its current location adjacent to the Main Control Room (MCR) to the building outside the Protected Area previously used as the site Local Emergency Operations Facility (LEOF).

Requirement:

- 10 CFR 50.47(b)(8) requires adequate emergency facilities and equipment to support the emergency response are provided and maintained.

The staff utilized the guidance in the following documents to conduct its review:

NUREG-0654/FEMA-REP-1, Revision 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," November 1980 (ADAMS Accession No. ML040420012), as amended in March 2002 (ADAMS Accession No. ML021050240). NUREG-0654, Section II.H, Evaluation Criterion H.1 states that ”Each licensee shall establish a Technical Support Center and onsite operations support center (assembly area) in accordance with NUREG-0696, Revision 1.”

NUREG-0696, "Functional Criteria for Emergency Response Facilities," February 1981 (ML051390358)

The following requests for additional information (RAI) is needed for the NRC staff to complete its review.

RAI 1.
NUREG-0696, Section 2.5 “Structure,” states, in part, that ”The TSC complex must be able to withstand the most adverse conditions reasonably expected during the design life of the plant including adequate capabilities for (1) earthquakes, (2) high winds (other than tornadoes), and (3) floods. The TSC need not meet seismic Category I criteria or be qualified as an engineered safety feature (ESF). Normally, a well-engineered structure will provide adequate capability to withstand earthquakes.” [emphasis added]

Issue: In Subsection c. of Section 3.1.5, “Structure,” of Attachment 1, “Description and Assessment of the Proposed Change,” the licensee states, in part, that,

This building was engineered and designed in accordance with the BOCA Code [Reference 18] which was the uniform building code used by Virginia at the time the LEOF was designed.

It is not apparent how Dominion Energy Virginia evaluation considers the proposed TSC building as a “well-engineered structure.”

Request: Provide clarification that the proposed TSC is a “well-engineered structure” that will provide adequate capability to withstand earthquakes.

RAI 2.
NUREG-0696, Section 2.5 “Structure,” states, in part, that the TSC complex must be able to withstand the most adverse conditions reasonably expected during the design life of the plant including adequate capabilities for (1) earthquakes, (2) high winds (other than tornadoes), and (3) floods. Winds and floods with a 100-year-recurrence frequency are acceptable as a design basis.

Issue: In Subsection c. of Section 3.1.5, “Structure,” of Attachment 1, the licensee states, in part, that,

The building has a finished floor elevation of 33 feet that is above the maximum UFSAR [updated final safety analysis report] [Reference 19] flood level discussed above.

It is apparent how the maximum flood level of 33 feet compares to a flood with a 100-year-recurrence frequency.

Request: Provide details on how the maximum flood level of 33 feet compares to a flood with a 100-year-recurrence frequency

RAI 3.
NUREG-0696, Section 2.6, “Habitability,” states, that protective equipment also shall be provided to allow TSC personnel to continue to function during the presence of low-level airborne radioactivity or radioactive surface contamination. Anticontamination clothing and respiratory

protective gear are examples of equipment that shall be provided. This equipment shall be properly maintained to assure availability during an emergency.

Issue: In Section 3.1.6.c.4, "Protective Equipment," of Attachment 1, the licensee states, in part, that,

By eliminating the need for TSC staff to travel to the MCR [main control room], crediting the design of the TSC ventilation system and the installed monitoring capability, in conjunction with the performance of local surveys and access control within the facilities, sufficient protection from and early indication of changing radiological conditions in the TSC is provided such that protective equipment can be dispatched to the TSC on an as needed basis rather than maintaining these items in the TSC.

It is not apparent the staff how equipment dispatched to the TSC on an as needed basis rather than maintaining these items in the TSC meets the intent of the guidance in NUREG-0696 to assure availability during an emergency.

Request: Provide details on how protective equipment can be dispatched to the TSC on an as needed basis rather than maintaining these items in the TSC meets the intent of the guidance in NUREG-0696 to assure availability during an emergency.

RAI 4.
NUREG-0696, Section 2.6, "Habitability," states, that sufficient potassium iodide shall be provided for use by TSC and control room personnel.

Issue: In Section 3.1.6.c.4, "Protective Equipment," of Attachment 1, the licensee states, in part, that,

As provided in the current Emergency Plan, thyroid blocking agents will continue to be maintained onsite for use as needed.

It is not apparent that potassium iodide would be available for use in the proposed TSC.

Request: Provide clarification that potassium iodide would be readily available for use in the proposed TSC.

RAI 5.
NUREG-0696, Section 2.9, "Technical Data and Data System," states, in part, that the TSC displays shall include alphanumeric and/or graphical representations of:

- Plant system variables,
- In-plant radiological variables,
- Meteorological information, and
- Offsite radiological information.

Issue: In Subsection c. of Section 3.1.9, "Technical Data, Data Systems, and Data System Equipment SC Power Supplies," of Attachment 1, the licensee states, in part, that,

Therefore, the TSC will continue to be provided with the required data inputs, data storage, data retrieval, and data trending capabilities to evaluate incident sequence, determine mitigating actions, evaluate damage, determine plant status during recovery operations, and perform the TSC function in accordance with NUREG-0696 [Reference 1] and NUREG-0737, Supplement 1 [Reference 2.

It is not clear apparent that proposed TSC will have the ability to display meteorological information and on-site and off-site radiological information.

Request: Provide clarification that the proposed TSC will have the ability to display meteorological information and on-site and off-site radiological information.

RAI 6.
Issue: In Section 7.1.3, "Technical Support Center," of Attachment 2, "Marked-Up SPS Emergency Plan Pages," the license states, in part, that,

Emergency response personnel will assemble at the primary TSC unless otherwise instructed by the SEM [Station Emergency Manager]. [emphasis added]

It is not apparent that proposed TSC will be the primary TSC as described in the proposed SPS Emergency Plan.

Request: Provide clarification that proposed TSC will be the primary TSC as described in the proposed SPS Emergency Plan.

Thanks in advance,

John Klos
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