**From:** Wiebe, Joel
**Sent:** Wednesday, March 2, 2022 8:38 AM
**To:** Henderson, Phillip A:(Exelon Nuclear); Lisa Simpson (Lisa.Simpson@constellation.com)
**Subject:** Byron, Braidwood, Calvert Cliffs, and Ginna - Non-acceptance of Application to Revise Technical Specifications 5.6.5, "CORE OPERATING

Hi Phil/Lisa,

The reasons for non-acceptance are described below. Let me know when you are ready to discuss the two sufficiency items below. LIC-109 requires a conference call within 5 working days of the date of this e-mail.

Joel

By letter dated January 24, 2022, Exelon Generation, LLC, proposed to revise the Technical Specifications (TSs) for Braidwood Station, Units 1 and 2, Byron Station, Units 1 and 2, Calvert Cliffs Station, Units 1 and 2, and Ginna Station as necessary to add a reference to the topical report SSP-14-P01/028-TR-P-A, "Generic Application of the Studsvik Scandpower Core Management System to Pressurized Water Reactors" to TS 5.6.5.b, the Core Operating Limits Report (COLR) references (Agencywide Document Access and Management System (ADAMS) Package Accession No. ML ML22025A235). On February 1, 2022 (ADAMS Accession No. ML22032A333), Exelon Generation Company, LLC was renamed Constellation Energy Generation, LLC.

The topical report, SSP-14-P01/028-TR-P-A, includes the NRC staff's safety evaluation report that provides generic approval of the CMS5 system of codes, consisting of CASMO5, CMSLINK5, and SIMULATE5. By virtue of the generic approval, the topical report addresses primarily theory, numerics, and qualification, and does not address the plant-specific implementation of these codes, or compliance with an individual plant's licensing basis requirements.

The NRC's Standard Review Plan (NUREG-0800), Section 4.3 "Nuclear Design" covers the areas of review for nuclear design methodologies. Much of the required areas of review have already been addressed during the review of the generic topical report; however, the plant-specific application of the method and incorporation into a plant's licensing basis remain to be addressed during the review of the license amendment request (LAR). Specifically, the SRP 4.3 Acceptance Criteria state:

> The acceptance criteria in the area of power distribution are that the information presented should satisfactorily demonstrate that:
>
> […]
>
> B. A reasonable probability exists that in normal operation the design limits will not be exceeded, based on consideration of […] the accuracy of design calculations used in developing correlations when primary variables are not directly measured; [and] the uncertainty analyses for the information and processing system […]

These acceptance criteria tie directly into GDC 10 and the associated design criteria for pre-GDC plants.

Without the sufficiency items below it is not possible to evaluate whether there is reasonable assurance that GDC 10 would be satisfied.

Sufficiency Items:

In accordance with Office of Nuclear Reactor Regulation (NRR) Office Instruction LIC-109, "Acceptance Review Procedures for Licensing Basis Changes," the NRC staff performed a review to determine whether the proposed incorporation of SSP-14-P01/028-TR-P-A includes sufficient information to begin a detailed technical review. Using the guidance provided in Appendix B, "Guide for Performing Acceptance Reviews," of LIC-109, the NRC staff determined that the proposed license amendment does not contain sufficient information to initiate its review, as described below:

1. Completeness of Scope: SSP-14-P01/028-TR-P-A provides generic Nuclear Uncertainty Factors (NUFs) and the associated Nuclear Reliability Factors (NRFs), but also provides a method to calculate plant-specific NUFs. The licensee's January 24, 2022, letter does not contain a summary of the analysis used to formulate the NUFs for each unit, including whether generic or plant-specific factors are used.

2. Sufficiency of Information: LIC-109 states:

   > The information provided should support a comparison of the RLA to the licensee's existing processes or programs, if applicable, with justification for the change. If significant, obvious problems are identified, the RLA should be considered unacceptable.

   The LAR, as submitted, does not contain a description of how SSP-14-P01/028-TR-P-A impacts downstream safety analyses. Please describe what quantities or parameter limits Constellation intends to calculate using CMS5 and explain how they are used in downstream cycle-specific analyses. Also, explain whether SSP-14-P01/028-TR-P-A will replace or supplement the existing methods used by Constellation to generate the COLR for each facility. For each type of quantity that is associated with a regulatory requirement (e.g., to determine local power as input to a critical heat flux calculation), provide an analysis or evaluation demonstrating that the applicable regulatory requirements (e.g., GDC 10) are satisfied. As an example, a summary that maximum peaking factors predicted for one plant using CMS5 are reasonably comparable to those calculated using the existing methodology, could be an acceptable amount of information to provide.

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