

From: [Venkataraman, Booma](#)
To: [Steinman, Rebecca L:\(Exelon Nuclear\)](#)
Cc: [Salgado, Nancy](#); [Wiebe, Joel](#)
Subject: ACCEPTANCE REVIEW: Quad Cities Units 1 and 2- License Amendment Request Regarding Transition to GNF3 Fuel (EPID: L-2021-LLA-0159)
Date: Monday, November 08, 2021 3:42:00 PM

Dear Ms. Steinman:

By application dated September 14, 2021, (Agencywide Document Access and Management System (ADAMS) Accession No. ML21257A419) as supplemented by letter dated November 3, 2021(ADAMS Accession No. ML21307A444), Exelon Generation Company, LLC (EGC, or the licensee) submitted a license amendment request with a proposed change that supports the transition from Framatome ATRIUM 10XM fuel to GNF3 fuel at Quad Cities Nuclear Power Station, Units 1 and 2. The proposed change includes revising Technical Specifications 5.6.5, "Core Operating Limits Report [COLR]," paragraph b, to add a report that supports the General Electric Standard Application for Reactor Fuel analysis methodology to the list of approved methods to be used in determining the core operating limits in the COLR. The licensee also plans to utilize Framatome RODEX2A methodology with an additional thermal conductivity degradation penalty in mixed core thermal- mechanical calculations. Additionally, in support of the proposed transition to GNF3 fuel, EGC proposes to revise the alternative source term loss-of-coolant accident analysis to use a bounding core inventory.

The purpose of this email is to provide the results of the U.S. Nuclear Regulatory Commission (NRC) staff's acceptance review of this amendment request. The acceptance review was performed to determine if there is sufficient technical information in scope and depth to allow the NRC staff to complete its detailed technical review. The acceptance review is also intended to identify whether the application has any readily apparent information insufficiencies in its characterization of the regulatory requirements or the licensing basis of the plant.

Consistent with Section 50.90 of Title 10 of the Code of Federal Regulations (10 CFR), an application for an amendment to a license (including the technical specifications) must fully describe the changes requested, and following as far as applicable, the form prescribed for original applications. Section 50.34 of 10 CFR addresses the content of technical information required. This section stipulates that the submittal address the design and operating characteristics, unusual or novel design features, and principal safety considerations.

The NRC staff has reviewed your application and the supplement and concluded that it does provide technical information in sufficient detail to enable the NRC staff to complete its detailed technical review and make an independent assessment regarding the acceptability of the proposed amendment in terms of regulatory requirements and the protection of public health and safety and the environment. Given the lesser scope and depth of the acceptance review as compared to the detailed technical review, there may be instances in which issues that impact the NRC staff's ability to complete the detailed technical review are identified despite completion of an adequate acceptance review. If additional information is needed, you will be advised by separate correspondence.

Based on the information provided in your submittal, the NRC staff has estimated that this licensing request will take approximately 1200 hours to complete. The NRC staff expects to complete this review by January 15, 2023. If there are emergent complexities or challenges in our review that would cause changes to the initial forecasted completion date or significant changes

in the forecasted hours, the reasons for the changes, along with the new estimates, will be communicated during the routine interactions with the assigned project manager.

These estimates are based on the NRC staff's initial review of the application and they could change, due to several factors including requests for additional information, unanticipated addition of scope to the review, and review by NRC advisory committees or hearing-related activities. Additional delay may occur if the submittal is provided to the NRC in advance or in parallel with industry program initiatives or pilot applications.

If you have any questions, please contact me at (301) 415-2934, or booma.venkataraman@nrc.gov.

Sincerely,

Booma Venkataraman

Project Manager, NRR/DORL/LPL3

Office of Nuclear Reactor Regulation

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cc: Distribution via Listserv