

DRAFT REQUEST FOR ADDITIONAL INFORMATION RELATED TO  
LICENSE AMENDMENT REQUEST FOR TECHNICAL SPECIFICATION CHANGES  
TO SAFETY LIMIT MINIMUM CRITICAL POWER RATIO VALUES  
PEACH BOTTOM ATOMIC POWER STATION – UNIT 3  
DOCKET NO. 50-278

By letter to the Nuclear Regulatory Commission (NRC) dated June 8, 2011,<sup>1</sup> as supplemented by letter dated August 19, 2011,<sup>2</sup> Exelon Generation Company, LLC, (Exelon) submitted a License Amendment Request (LAR) for Peach Bottom Atomic Power Station (PBAPS), Unit 3. The submittal seeks to revise Technical Specification 2.1.1, "Reactor Core SLs [safety limits]" to reflect revised Safety Limit Minimum Critical Power Ratio (SLMCPR) values for operating cycle 19. The NRC staff has reviewed Exelon's response to the NRC Request for Additional Information (RAI) dated August 19, 2011,<sup>2</sup> and determined that additional information, as described below, is needed to complete the review.

- RAI-08: Identify the sections/pages of Reference 02-1: "Global Nuclear Fuel, "General Electric Standard Application for Reactor Fuel (GESTAR II)," NEDE-24011P-A-18 and NEDE-24011P-A-18-US, April 2011, that are applicable to the inputs identified in the response to RAI-02.<sup>2</sup> In addition, provide a quantitative range for the referenced thermal limit margins and the reactivity margins.
- RAI-09: Identify the sections/pages of Reference 03-1: "Global Nuclear Fuel, "General Electric Standard Application for Reactor Fuel (GESTAR II)," NEDE-24011P-A-18 and NEDE-24011P-A-18-US, April 2011, that describe the SLMCPR calculation related to GNF2 fuel assemblies as discussed in the response to RAI-03.<sup>2</sup>
- RAI-10: Provide the calculation details requested in RAI-05.<sup>12</sup> that justify the results listed in Table 3 of Attachment 4 from the June 8, 2011, submittal.<sup>3</sup>
- RAI-11: Explain why the backup stability protection depicted in the power flow operation map contained in Attachment 6 of the June 8, 2011,<sup>1</sup> submittal extends beyond the applicable region.
- RAI-12: Provide the backup stability protection for single loop operation in the power/flow map presented in Attachment 6 of the June 8, 2011,<sup>1</sup> submittal.

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<sup>1</sup> Agencywide Documents Access and Management System (ADAMS) Accession No. ML111600180.

<sup>2</sup> ADAMS Accession No. ML112340236

<sup>3</sup> Note that the "Attachment 4" referenced in RAI-10 is the non-publicly available, proprietary version of Attachment 5 associated with the submittal dated June 8, 2011 (ADAMS Accession No. ML111600180).