UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

July 16, 2013

Mr. Michael P. Gallagher
Vice President, License Renewal
Exelon Generation Company, LLC
200 Exelon Way
Kennett Square, PA 19348

SUBJECT: DETERMINATION OF ACCEPTABILITY AND SUFFICIENCY FOR DOCKETING, PROPOSED REVIEW SCHEDULE, AND OPPORTUNITY FOR A HEARING REGARDING THE APPLICATION FROM EXELON GENERATION COMPANY, LLC, FOR RENEWAL OF THE OPERATING LICENSES FOR BYRON NUCLEAR STATION, UNITS 1 AND 2, AND BRAIDWOOD NUCLEAR STATION, UNITS 1 AND 2

Dear Mr. Gallagher:

By letter dated May 29, 2013, the U.S. Nuclear Regulatory Commission (NRC or the staff) received the Exelon Generation Company, LLC (Exelon), application for renewal of operating licenses NPF-37, NPF-66, NPF-72, and NPF-77 for Byron Nuclear Station (Byron), Units 1 and 2, and Braidwood Nuclear Station (Braidwood), Units 1 and 2, respectively. Notice of receipt of this application was published in the *Federal Register* on June 13, 2013 (78 FRN 35646). The purpose of this letter is to provide the results of the staff's acceptance review of the license renewal application (LRA) for these facilities. The acceptance review determines whether the application contains sufficient information to allow the staff to proceed with the safety and environmental reviews.

The staff has reviewed your application following the guidance in NUREG-1800, Revision 2, "Standard Review Plan for Review of License Renewal Applications for Nuclear Power Plants," and NUREG-1555, Revision 1, "Standard Review Plans for Environmental Reviews for Nuclear Power Plants, Supplement 1: Operating License Renewal." As a result, the staff has determined that the application is sufficient and acceptable for docketing in accordance with Title 10 of the *Code of Federal Regulations* (CFR) Sections 2.101, 51.45, 51.53(c), 54.19, 54.21, 54.22, and 54.23. However, the staff's determination does not preclude requests for additional information (RAIs) as the review proceeds.

This letter forwards the staff's safety and environmental review schedule for the Byron and Braidwood application (Enclosure 1). Milestones for hearing activities are not included in the enclosed schedule because these dates, if needed, would be established by the Commission or the Atomic Safety and Licensing Board. The NRC staff will follow established review procedures and the enclosed schedule to complete the reviews required by 10 CFR Parts 51 and 54.

The staff noted that this application is for two sites, with two units on each site — i.e., a dual-site LRA — as opposed to a standard, single-site LRA. This uniqueness of the LRA has led the staff to consider the implications of this on the schedule of work activities and milestones for performing a combined review of the two sites. As a result, the staff notes that additional review work may be necessary due to situations including, but not limited to, the following examples:

performing a combined review of the two sites. As a result, the staff notes that additional review work may be necessary due to situations including, but not limited to, the following examples:

- Additional Aging Management Programs Audit work and additional Scoping and Screening Audit work due to the need to audit and walk down two sites instead of one site
- Structural differences (e.g., substrates, structures, ultimate heat sink systems, external surfaces issues) at each site that add additional work to ensure details are accounted for correctly and evaluated properly
- Recent guidelines for pressurized water reactor (PWR) reactor vessel internals aging management that have resulted in an ongoing dialogue among the staff, licensees, and industry, indicating that a significant amount of review by the staff will be needed, along with additional information related to Byron and Braidwood's PWR vessels' internal components
- Separate, site-specific environmental reviews and associated Environmental Site Audits will be required (even though the sites are similar), including such things as surface water and groundwater hydrology, aquatic ecology quality and makeup, and assessments of differences in cooling water intake and discharge system configuration and impacts
- More extensive reviews of severe accident mitigation alternatives analyses for each site due to the larger volume of data and information submitted for and in support of a dual-site LRA

At this point, the staff believes that this review will be comprised of one Safety Evaluation Report (SER) and two supplemental environmental impact statements (SEISs). The staff will, however, continue to monitor and evaluate whether a single SER or two SERs would be more appropriate in the final analysis.

We would like to emphasize that the staff's review of your LRA will be very detailed and thorough. The staff will make every effort to meet the scheduled milestones; thus, your responses to the staff's RAIs, if needed, must be complete, accurate, and provided in a timely manner. We request that you inform the NRC staff as early as possible should potential delays arise in your support of the schedule.

Finally, we have also enclosed a copy of the notice related to your application that is being sent to the Office of the *Federal Register* for publication (Enclosure 2). This notice announces the opportunity to request a hearing and to file a petition for leave to intervene.

If you have any questions related to the safety review of the Byron and Braidwood LRA, please contact Mr. John Daily, Senior Project Manager, by telephone at 301-415-3873 or by e-mail at John.Daily@nrc.gov. If you have any questions related to the environmental reviews of the Byron and Braidwood LRA, please contact Ms. Lois James at 301-415-3306 or by e-mail at Lois.James@nrc.gov, or Mr. Tam Tran at 301-415-3617 or by e-mail at Tam.Tran@nrc.gov, as appropriate.

Sincerely,

FR

John W. Lubinski, Director
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket Nos. 50-454, 50-455, 50-456, and 50-457

Enclosures:
As stated

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If you have any questions related to the safety review of the Byron and Braidwood LRA, please contact Mr. John Daily, Senior Project Manager, by telephone at 301-415-3873 or by e-mail at John.Daily@nrc.gov. If you have any questions related to the environmental reviews of the Byron and Braidwood LRA, please contact Ms. Lois James at 301-415-3306 or by e-mail at Lois.James@nrc.gov, or Mr. Tam Tran at 301-415-3617 or by e-mail at Tam.Tran@nrc.gov, as appropriate.

Sincerely,

/RA by David L. Pelton for/

John W. Lubinski, Director
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket Nos. 50-454, 50-455, 50-456, and 50-457

Enclosures:
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Letter to Michael P. Gallagher from John W. Lubinski dated July 16, 2013

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