



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

August 12, 2013

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

SUBJECT: PLAN FOR THE AGING MANAGEMENT PROGRAM REGULATORY AUDITS REGARDING THE BYRON AND BRAIDWOOD NUCLEAR STATIONS LICENSE RENEWAL APPLICATION REVIEW (TAC NOS. MF1879, MF1880, MF1881 AND MF1882)

Dear Mr. Gallagher:

By letter dated May 29, 2013, Exelon Generation Company, LLC, submitted an 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. The staff of the U.S. Nuclear Regulatory Commission (NRC or the staff) is reviewing this application in accordance with the guidance in NUREG-1800, "Standard Review Plan for Review of License Renewal Applications for Nuclear Power Plants."

The staff plans to conduct two aging management program regulatory audits, one at Byron (August 19 – 30, 2013) and one at Braidwood (October 28 – November 8, 2013), in accordance with the enclosed regulatory audit plan. If you have any questions, please contact me by telephone at (301) 415-3873 or by e-mail at john.daily@nrc.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "John W. Daily, Sr." with a stylized flourish at the end.

John W. Daily, Sr. Project Manager
Projects Branch 1
Division of License Renewal
Office of Nuclear Reactor Regulation

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

Enclosure:
As stated

cc w/encl: Listserv

August 12, 2013

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

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*concurrence via email

OFFICE	LA: DLR*	PM: DLR/RPB1	BC: DLR/RPB1	PM: DLR/RPB1
NAME	IKing	JDaily	YDiazSanabria	JDaily
DATE	8/7/13	8/12/13	8/12/13	8/12/13

OFFICIAL RECORD COPY

Letter to M. Gallagher from John W. Daily dated August 12, 2013

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REGARDING THE BYRON AND BRAIDWOOD NUCLEAR STATIONS
LICENSE RENEWAL APPLICATION REVIEW (TAC NOS. MF1879, MF1880,
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JDaily

LRobinson

TTran

DMcIntyre, OPA

JWiebe, DORL

BBartlett, RIII

JRobbins, RIII

JBenjamin, RIII

AGarmoe, RIII

EDuncan, RIII



Audit Plan

**Aging Management Program Audits
for the Byron Station, Units 1 and 2,
and
Braidwood Station, Units 1 and 2,
License Renewal Application**

**Division of License Renewal
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission**

ENCLOSURE

License Renewal Aging Management Program Audit Plan Byron and Braidwood Nuclear Stations

1. Background

By letter dated May 29, 2013, Exelon Generation Company, LLC, submitted an application for renewal of operating licenses NPF-37, NPF-66, NPF-72, and NPF-7 for Byron Nuclear Station (Byron), Units 1 and 2, and Braidwood Nuclear Station (Braidwood), Units 1 and 2, respectively. The applicant requested renewal of the operating licenses for an additional 20 years beyond the current licenses' 40-year terms, which expire on October 31, 2024, November 6, 2026, October 17, 2026, and December 18, 2027, respectively. The staff from the Division of License Renewal will lead two regulatory audits to gain a better understanding of the applicant's aging management programs (AMPs), aging management reviews, and associated bases and documentation as applicable.

2. Regulatory Audit Bases

License renewal requirements are specified in Title 10 of the *Code of Federal Regulations* (10 CFR) Part 54 (10 CFR Part 54), "Requirements for Renewal of Operating Licenses for Nuclear Power Plants." Guidance is provided in NUREG-1800, Revision 2, "Standard Review Plan for Review of License Renewal Applications for Nuclear Power Plants" (SRP-LR), dated December 2010, and in NUREG-1801, Revision 2, "Generic Aging Lessons Learned (GALL) Report," dated December 2010.

3. Regulatory Audit Scope or Methodology

The scope of these audits is to: (a) examine the applicant's AMPs for Byron and Braidwood; and (b) verify the applicant's claims of consistency with the corresponding GALL Report AMPs. Enhancements to AMPs will be evaluated on a case-by-case basis. Exceptions to the GALL Report AMP elements will be evaluated separately as part of the NRC staff's review of the license renewal application (LRA), and will be documented in the staff's safety evaluation report.

The SRP-LR allows an applicant's LRA to reference its AMPs as being consistent with the AMPs described in the GALL Report. By referencing the GALL Report AMPs in this manner, the applicant is concluding that its AMPs correspond to those AMPs and that no further staff review should be required. If an applicant credits an AMP for being consistent with a GALL Report program, it is incumbent on the applicant to ensure that the plant program contains all of the elements of the referenced GALL Report program. The applicant's determination shall be documented and maintained in an auditable, retrievable form.

During this audit, the staff will audit program elements 1 - 6 (scope, preventive actions, parameters monitored or inspected, detection of aging effects, monitoring and trending, and acceptance criteria), and program element 10 (operating experience), of the applicant's AMPs claimed to be consistent with the GALL Report against the equivalent elements of the associated AMP described in the GALL Report, unless otherwise indicated. Program elements 7 - 9 (corrective actions, confirmation process, and administrative controls) are audited by another NRC project team during the scoping and screening methodology audit, and

are evaluated separately. In addition, the staff will verify that the conditions at the plant are bounded by the conditions for which the GALL Report program was evaluated.

The staff will also examine the applicant's program bases documents and related references for these AMPs, perform selected in-plant walkdowns, and interview applicant representatives to obtain additional clarification related to the AMPs.

4. Information and Other Material Necessary for the Regulatory Audit

The project team will review the LRA, the AMPs, the AMP basis documents, and other applicant supporting documentation as appropriate.

The project team would like for at least one hard-copy set of AMPs, AMP basis documents, and all other relevant documentation to be available in the team's work room.

Work space and team support logistics:

One general team work area with seating and laptop space for 15 people.

Three break-out rooms for question/answer/small group sessions and meetings, so that work in the main room will not be disrupted.

Telephone access for in-plant and/or outside business-related calls. The break-out rooms should also have speaker phone capability for conference calls.

Access to printers for printing out drafts, draft requests for additional information, review comments, schedules, and so on.

Access to a copier for making duplicates for team use, meeting agendas and so on

Information on availability of food/snacks that the team would be able to purchase, or nearby restaurants.

5. Team Assignments

NRC staff participation is projected as follows (some deletions, additions or substitutions may occur on an as-needed basis):

Byron week of August 19, 2013, Mechanical/Materials:

Assigned Auditor	Area of Review
John Daily	Project Manager
Lindsay Robinson	Project Manager
Dennis Morey	Branch Chief
Mark Yoo	Mechanical/Materials
Varoujan (Roger) Kalikian	Mechanical/Materials
Don Brittner	Mechanical/Materials

Assigned Auditor	Area of Review
Seung Min	Mechanical/Materials
William (Bill) Holston	Mechanical/Materials
John Wise	Mechanical/Materials
Bart Fu	Mechanical/Materials
On Yee	Mechanical/Materials
Lana Hoang	Mechanical/Materials
William Gardner	Mechanical/Materials
James Gavula	Mechanical/Materials
Kimberly Green	Mechanical/Materials
Cimberly Nickell	Mechanical/Materials

Byron week of August 26, 2013, Electrical/Structural:

Assigned Auditor	Area of Review
John Daily	Project Manager
Michael Marshall	Branch Chief
Ata Istar	Structural
Angela Buford	Structural
Alice Erickson	Structural
Rui Li	Electrical
Duc Nguyen	Electrical
Don Brittner	SSCs and Component Walkdowns
Aloysius Obodoako	Mechanical/Materials

Braidwood week of October 28, 2013, Mechanical/Materials:

Assigned Auditor	Area of Review
John Daily	Project Manager
Lindsay Robinson	Project Manager
Dennis Morey	Branch Chief
Mark Yoo	Mechanical/Materials
Varoujan (Roger) Kalikian	Mechanical/Materials
Don Brittner	Mechanical/Materials
Seung Min	Mechanical/Materials
William (Bill) Holston	Mechanical/Materials
John Wise	Mechanical/Materials
Bart Fu	Mechanical/Materials
On Yee	Mechanical/Materials
Lana Hoang	Mechanical/Materials
William Gardner	Mechanical/Materials
James Gavula	Mechanical/Materials
Kimberly Green	Mechanical/Materials
Cimberly Nickell	Mechanical/Materials
Aloysius Obodoako	Mechanical/Materials

Braidwood week of November 4, 2013, Electrical/Structural:

Area of Review	Assigned Auditor
John Daily	Project Manager
Lindsay Robinson	Project Manager
Michael Marshall	Branch Chief

Area of Review	Assigned Auditor
Ata Istar	Structural
Angela Buford	Structural, Scoping and Screening
Alice Erickson	Structural
Rui Li	Electrical, Scoping and Screening
Duc Nguyen	Electrical
Bill Rogers	Scoping and Screening Lead
Don Brittner	Scoping and Screening

6. Logistics

The audit will be conducted on-site at each location according to the following schedule:

- Byron, Units 1 and 2, during the weeks of August 19 and August 26, 2013. An entrance and an exit briefing will be held at the beginning and end of this audit, respectively.
- Braidwood, Units 1 and 2, during the weeks of October 28 and November 4, 2013. An entrance and an exit briefing will be held at the beginning and end of this audit, respectively.
- In addition to the normal AMP audit tasks for the Braidwood audit, the Scoping and Screening audit of Braidwood-specific and miscellaneous issues will take place during the November 4 week.

Each week's activities will begin on Monday morning and are normally planned to extend through part of the day Friday. Normally a status briefing should be held at the close of a day's activities to highlight progress and any special issues identified, and to review and/or adjust the schedule for the next day's work.

7. Special Requests

The staff requests the applicant to make available the LRA program basis documentation and license renewal drawings (hard copy), and their condition report database (electronic version access) for independent searches by the regulatory audit team. Electronic copies of the Keyword Search Results should be made available for the staff's use while on-site. Applicant personnel responsible for or involved with the various programs should also be available.

8. Deliverables

An audit summary report will be issued to the applicant, normally within 90 days from the end of each audit.