



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION III
2443 WARRENVILLE RD. SUITE 210
LISLE, IL 60532-4352

September 2, 2014

Mr. Michael J. Pacilio
Senior VP, Exelon Generation Co., LLC
President and CNO, Exelon Nuclear
4300 Winfield Road
Warrenville, IL 60555

SUBJECT: MID-CYCLE ASSESSMENT LETTER FOR BRAIDWOOD STATION,
UNITS 1 AND 2

Dear Mr. Pacilio:

On August 5, 2014, the U.S. Nuclear Regulatory Commission (NRC) staff completed its mid-cycle performance review of Braidwood Station, Units 1 and 2. The NRC reviewed the most recent quarterly performance indicators (PIs) in addition to inspection results and enforcement actions from July 1, 2013 through June 30, 2014. This letter informs you of the NRC's assessment of your facility during this period and its plans for future inspections at your facility.

The NRC determined that overall, Braidwood Station, Units 1 and 2, was operated in a manner that preserved public health and safety and met all cornerstone objectives. The NRC determined that the performance at Braidwood Station, Units 1 and 2, during the most recent quarter, as well as the previous three quarters of the assessment period, was within the Licensee Response column of the NRC's Reactor Oversight Process (ROP) Action Matrix, because all inspection findings had very low (i.e., Green) safety significance, and all PIs indicated that your performance was within the nominal, expected range (i.e., Green). Therefore, the NRC plans to conduct ROP baseline inspections at your facility. The NRC also plans to conduct infrequently performed inspection activities in accordance with Inspection Procedure 60855.1, "Operation of an ISFSI [Independent Spent Fuel Storage Installation] at Operating Plants," related to your ISFSI; Inspection Procedure 71002, "License Renewal Inspection," associated with your license renewal application; and to follow-up on Severity Level IV violations in 2013 using Inspection Procedure 92723, "Follow Up Inspection for Three or More Severity Level IV Traditional Enforcement Violations in the Same Area in a 12-month Period."

As a result of the Safety Culture Common Language Initiative, the terminology and coding of cross-cutting aspects were revised. All cross-cutting aspects identified during inspections conducted in calendar year 2014 reflect this revision to Inspection Manual Chapter (IMC) 0310.

Cross-cutting aspects identified in 2013 using the 2013 terminology were converted to the latest revision in accordance with the cross-reference in IMC 0310 during the mid-cycle assessment review and evaluated for cross-cutting themes and potential substantive cross-cutting issues in accordance with IMC 0305.

The enclosed inspection plan lists the inspections scheduled through December 31, 2015. Routine inspections performed by resident inspectors are not included in the inspection plan. The inspections listed during the last nine months of the inspection plan are tentative and may be revised at the end-of-cycle performance review. The NRC provides the inspection plan to allow for the resolution of any scheduling conflicts and personnel availability issues. The NRC will contact you as soon as possible to discuss changes to the inspection plan should circumstances warrant any changes. This inspection plan does not include security-related inspections, which will be sent via separate, non-publicly available correspondence.

In response to the accident at Fukushima, the Commission issued Order EA-12-049, "Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events," which requires licensees to develop, implement, and maintain guidance and strategies to maintain or restore core cooling, containment, and spent fuel pool cooling capabilities following a beyond-design-basis external event. Additionally, the Commission issued Order EA-12-051, "Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation," which requires licensees to have a reliable means of remotely monitoring wide-range Spent Fuel Pool levels to support effective prioritization of event mitigation and recovery actions in the event of a beyond-design-basis external event. The NRC is conducting audits of licensee efforts towards compliance with these Orders. This audit includes an onsite component in order for the NRC to evaluate licensee plans for complying with the Orders, as described in site-specific submittals, and to receive and review information relative to associated open items. This onsite activity will occur in the months prior to a declaration of compliance for the first unit at each site, and will aid staff in development of an ultimate Safety Evaluation for the site. The date for the onsite component at your site is being coordinated with your staff. A site-specific audit plan for the visit will be provided in advance to allow sufficient time for preparations.

In accordance with Title 10 of the *Code of Federal Regulations* 2.390, "Public Inspections, Exemptions, Requests for Withholding," of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records System (PARS) component of NRC's Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

M. Pacilio

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Please contact me at 630-829-9620 with any questions you may have regarding this letter or the inspection plan.

Sincerely,

/RA/

Eric R. Duncan, Chief
Branch 3
Division of Reactor Projects

Docket Nos. 50-456, 50-457
License Nos. NPF-72, NPF-77

Enclosure: Braidwood Station
Inspection/Activity Plan

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M. Pacilio

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Braidwood
Inspection / Activity Plan
09/01/2014 - 12/31/2015

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
Start	End				
			BI EPX - EP EXERCISE INSPECTION / PI VERIFICATION		3
1, 2	11/17/2014	11/21/2014	IP 71151	Performance Indicator Verification	
			ISFSI - ISFSI OPERATION AT A REACTOR SITE		2
1, 2	09/01/2014	10/01/2014	IP 60855.1	Operation of an Independent Spent Fuel Storage Installation at Operating Plants	
			RENEWAL - LICENSE RENEWAL INSPECTION		9
1, 2	09/15/2014	09/24/2014	IP 71002	License Renewal Inspection	
			FOLLOWUP - MULTIPLE SL IV VIOLATIONS REVIEW		3
1, 2	10/06/2014	10/10/2014	IP 92723	Follow Up Inspection for Three or More Severity Level IV Traditional Enforcement Violations in the S	
			OL PREP - INIT EXAM - 11/2014		5
1	10/20/2014	10/24/2014	W90319	OL - EXAM - 2014 NOV - BRAIDWOOD	
			BI HS - TRIENNIAL HEAT SINK INSPECTION		2
1, 2	11/03/2014	11/07/2014	IP 7111107T	Heat Sink Performance	
			OL - IE - INIT EXAM - 11/2014		5
1	11/10/2014	11/21/2014	W90319	OL - EXAM - 2014 NOV - BRAIDWOOD	
			ENF - 50.9 SL IV VIOLATION FOLLOWUP RPV HD FLG		1
2	11/17/2014	11/21/2014	IP 92702	Followup On Corrective Actions For Violations And Deviations	
			BI EPR - EP ROUTINE INSPECTION / PI VERIFICATION		2
1	02/23/2015	02/27/2015	IP 7111402	Alert and Notification System Testing	
1, 2	02/23/2015	02/27/2015	IP 7111403	Emergency Preparedness Organization Staffing and Augmentation System	
1, 2	02/23/2015	02/27/2015	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies	
1	02/23/2015	02/27/2015	IP 71151	Performance Indicator Verification	
			BI RP - RADIATION PROTECTION BASELINE INSPECTION		1
1	02/23/2015	02/27/2015	IP 71124.06	Radioactive Gaseous and Liquid Effluent Treatment	
1	02/23/2015	02/27/2015	IP 71151-PR01		
			BI RP - RADIATION PROTECTION BASELINE INSPECTION		1
1	04/20/2015	04/24/2015	IP 71124.05	Radiation Monitoring Instrumentation	
1	04/20/2015	04/24/2015	IP 71151-BI01		
			BI FIRE - FIRE PROTECTION AND BAG TRIP		3
1, 2	07/27/2015	08/28/2015	IP 7111105T	Fire Protection [Triennial]	
			BI RP - RADIATION PROTECTION BASELINE INSPECTION		1
1	08/10/2015	08/14/2015	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1	08/10/2015	08/14/2015	IP 71124.02	Occupational ALARA Planning and Controls	
1	08/10/2015	08/14/2015	IP 71151-OR01		

This report does not include INPO and OUTAGE activities.
This report shows only on-site and announced inspection procedures.

Braidwood
Inspection / Activity Plan
09/01/2014 - 12/31/2015

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
			BI OLRQ - BIENNIAL REQUAL PROGRAM INSPECTION		2
1, 2	08/17/2015	08/21/2015	IP 7111111B	Licensed Operator Requalification Program	
			BI ISI - INSERVICE INSPECTION UNIT 2		1
1, 2	10/05/2015	10/28/2015	IP 7111108P	Inservice Inspection Activities - PWR	