



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

September 3, 2013

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

SUBJECT: MID-CYCLE ASSESSMENT LETTER FOR
BRAIDWOOD STATION UNITS 1 AND 2
(REPORT 05000456/2013006 AND 05000457/2013006)

Dear Mr. Pacilio:

On August 14, 2013, 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, 2012 through June 30, 2013. 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 the performance at Braidwood Station, Unit 1 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 safety significance (i.e., Green) and all PIs indicated your performance was within the normal, expected range (i.e., Green).

The NRC determined that the performance at Braidwood Station, Unit 2 for the first two quarters of the assessment period was within the Regulatory Response column of the NRC's Action Matrix, because although all inspection findings had very low (i.e., Green) safety significance, one performance indicator was White and therefore required additional NRC oversight. Specifically, the Mitigating Systems Performance Index for the Cooling Water Systems crossed the Green-White threshold and caused Braidwood Unit 2 to transition from the Licensee Response column to the Regulatory Response column of the ROP Action Matrix in the second quarter of 2012.

This White performance indicator issue was closed on November 30, 2012, as documented in our letter to you dated December 27, 2012 [ML12362A257]. As a result, Braidwood Unit 2 returned to the Licensee Response column of the ROP Action Matrix as of the date of that letter. Braidwood Unit 2 remained in the Licensee Response column for the remainder of the assessment period.

Therefore, the NRC plans to conduct ROP baseline inspections at your facility. The NRC also plans to conduct infrequently performed inspection activities related to the operation of the Independent Spent Fuel Storage Installation using Inspection Procedure 60855.1, "Operation of an Independent Spent Fuel Storage Installation at Operating Plants."

The NRC identifies substantive cross-cutting issues (SCCIs) to communicate a concern with the licensee's performance in a cross-cutting area and to encourage the licensee to take appropriate actions before more significant performance issues emerge. The NRC identified a cross-cutting theme in the Corrective Action Program component of the Problem Identification and Resolution cross-cutting area. Specifically, there were four findings identified to have a cross-cutting aspect in the area of problem evaluation and resolution, P.1(c), during the assessment period. The NRC determined that a SCCI associated with P.1(c) does not exist because, at this time, the NRC does not have a concern with your staff's planned scope of effort and initial progress in addressing the cross-cutting theme. In reviewing your efforts to date, the NRC noted that you recently performed a comprehensive apparent cause evaluation that identified a number of areas for improvement for which you prescribed corrective actions to address. These corrective actions should be implemented in a timely manner and be maintained for a sufficient time to demonstrate that they have been effective in addressing the causes for the cross-cutting theme. The NRC will continue to closely monitor your staff's progress in implementing these corrective actions until the theme criteria are no longer met.

The enclosed inspection plan lists the inspections scheduled through December 31, 2014. 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 accordance with 10 CFR 2.390 of the NRC's Rules of Practice, a copy of this letter and its enclosure will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's Agencywide Document 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

cc w/encl: Distribution via ListServ™

M. Pacilio

-3-

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Letter to M. Pacilio from E. Duncan dated September 3, 2013

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BRAIDWOOD STATION UNITS 1 AND 2
(REPORT 05000456/2013006 AND 05000457/2013006)

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Braidwood
Inspection / Activity Plan
09/01/2013 - 12/31/2014

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
			BI ISI - ISI BASELINE INSPECTION UNIT 1		2
1	09/09/2013	09/27/2013	IP 7111108P	Inservice Inspection Activities - PWR	
			BI RP - RADIATION PROTECTION BASELINE INSPECTION		1
1, 2	09/16/2013	09/20/2013	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1, 2	09/16/2013	09/20/2013	IP 71124.02	Occupational ALARA Planning and Controls	
1, 2	09/16/2013	09/20/2013	IP 71151-OR01	Occupational Exposure Control Effectiveness	
			STRIKE - STRIKE CONTINGENCY - OPS / RP / MAINT		3
1, 2	12/02/2013	12/31/2013	IP 92709	Licensee Strike Contingency Plans	
			BI MODS - MODIFICATION/50.59 INSPECTION		3
1, 2	01/21/2014	02/07/2014	IP 7111117T	Evaluations of Changes, Tests, and Experiments and Permanent Plant Modifications	
			BI RP - RADIATION PROTECTION BASELINE INSPECTION		1
1, 2	02/10/2014	02/14/2014	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1, 2	02/10/2014	02/14/2014	IP 71124.04	Occupational Dose Assessment	
			BI ISI - INSERVICE INSPECTION UNIT 2		2
1, 2	05/05/2014	05/23/2014	IP 7111108P	Inservice Inspection Activities - PWR	
			BI RP - RADIATION PROTECTION BASELINE INSPECTION		1
1, 2	05/12/2014	05/16/2014	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
			PI&R - BIENNIAL PI&R INSPECTION		2
1, 2	07/14/2014	08/01/2014	IP 71152B	Problem Identification and Resolution	
			ISFSI - ISFSI OPERATION AT A REACTOR SITE		1
1, 2	08/01/2014	08/31/2014	IP 60855.1	Operation of an Independent Spent Fuel Storage Installation at Operating Plants	
			BI RP - RADIATION PROTECTION BASELINE INSPECTION		1
1, 2	08/11/2014	08/15/2014	IP 71124.05	Radiation Monitoring Instrumentation	
			BI EPX - EP EXERCISE INSPECTION / PI VERIFICATION		2
1, 2	11/17/2014	11/21/2014	IP 71151	Performance Indicator Verification	
			RENEWAL - LICENSE RENEWAL INSPECTION		6
1, 2	09/22/2014	10/10/2014	IP 71002	License Renewal Inspection	
			BI RP - RADIATION PROTECTION BASELINE INSPECTION		1
1, 2	11/03/2014	11/07/2014	IP 71124.02	Occupational ALARA Planning and Controls	
1, 2	11/03/2014	11/07/2014	IP 71151	Performance Indicator Verification	
			BI HS - TRIENNIAL HEAT SINK INSPECTION		2
1, 2	11/03/2014	11/07/2014	IP 7111107T	Heat Sink Performance	

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