

August 31, 2007

Mr. Christopher M. Crane
President and Chief Nuclear Officer
Exelon Nuclear
Exelon Generation Company, LLC
4300 Winfield Road
Warrenville, IL 60555

SUBJECT: MID-CYCLE PERFORMANCE REVIEW AND INSPECTION PLAN -
BRAIDWOOD STATION

Dear Mr. Crane:

On August 14, 2007, the NRC staff completed its performance review of the Braidwood Station for the first half of the calendar year (CY) 2007 assessment cycle. Our technical staff reviewed performance indicators (PIs) for the most recent quarter and inspection results over the previous 12 months. The purpose of this letter is to inform you of our assessment of your safety performance during this period and our plans for future inspections at your facility.

This performance review and enclosed inspection plan do not include security information. A separate letter designated and marked as "Official Use Only - Security-Related Information" will include the security cornerstone review and resultant inspection plan.

Plant performance for the most recent quarter at the Braidwood Nuclear Generating Plant Units 1 and 2 was within the Licensee Response column of the NRC's Action Matrix, based on all inspection findings being classified as having very low safety significance (Green) and all PIs indicating performance at a level requiring no additional NRC oversight (Green). Therefore, we plan to conduct reactor oversight process (ROP) baseline inspections at your facility.

The enclosed inspection plan details the inspections, less those related to security, scheduled through December 31, 2008. Significant inspections planned include a Biennial Problem Identification and Resolution inspection in October 2008, and an Evaluation of Changes, Tests, or Experiments and Permanent Plant Modifications inspection in November 2008. The inspection plan is provided to allow for the resolution of any scheduling conflicts and personnel availability issues well in advance of inspector arrival onsite. Routine resident inspections are not listed due to their ongoing and continuous nature. The inspections in the last nine months of the inspection plan are tentative and may be revised at the end-of-cycle review.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

The NRC is currently evaluating the scope and frequency of all the baseline inspection procedures. If the results of the evaluation, or any other circumstances, cause us to change the inspection plan, we will contact you to discuss the change as soon as possible. Please contact Richard A. Skokowski at (630) 829-9620 with any questions you may have regarding this letter or the inspection plan.

Sincerely,

/RA by A. H. Hsia for/

Cynthia D. Pederson, Director
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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Letter to C. Crane from C. Pederson dated August 31, 2007

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BRAIDWOOD STATION

cc w/encl: Site Vice President - Braidwood Station
Plant Manager - Braidwood Station
Regulatory Assurance Manager - Braidwood Station
Chief Operating Officer
Senior Vice President - Nuclear Services
Vice President - Operations Support
Vice President - Licensing and Regulatory Affairs
Director Licensing
Manager Licensing - Braidwood and Byron
Senior Counsel, Nuclear, Mid-West Regional
Operating Group
Document Control Desk - Licensing
Assistant Attorney General
Illinois Emergency Management Agency
State Liaison Officer
Chairman, Illinois Commerce Commission
Will County Executive
Will County Sheriff
Director, Will County Emergency Management
Agency
Mayor of Joliet
City Manager of Joliet
Kendall County Board Chairman
Kendall County Sheriff
Grundy County Board Chairman
Grundy County Sheriff
Grundy County Emergency Management Agency
Mayor of Morris
Minooka Village President
Mayor of Coal City
Mayor of Carbon Hill
Mayor of Diamond
Mayor of Braidwood
Mayor of Wilmington
Channahon Village President
Channahon Village Administrator
Mayor of Shorewood
Shorewood Village Administrator
Mayor of Elwood
Mayor of Braceville
Mayor of Kankakee
INPO

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BRAIDWOOD STATION

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DRPIII

DRSIII

PLB1

TXN

Braidwood
Inspection / Activity Plan
09/01/2007 - 12/31/2008

Inspection Activity	Title	No. of Staff on Site	Planned Dates Start	End	Inspection Type
BI RP	- RADIATION PROTECTION BASELINE INSPECTION	1			
IP 7112102	ALARA Planning and Controls		10/08/2007	10/19/2007	Baseline Inspections
BI ENG	- ENGINEERING INSERVICE INSPECTION	1			
IP 7111108P	Inservice Inspection Activities - PWR		10/08/2007	10/26/2007	Baseline Inspections
OL EXAM	- EXAM PREPARATION 11/2007	3			
W90172	OL - INITIAL EXAM - BRAIDWOOD - NOV/DEC 2007		10/22/2007	10/26/2007	Not Applicable
OL EXAM	- INITIAL LICENSING EXAM 12/2007	3			
W90172	OL - INITIAL EXAM - BRAIDWOOD - NOV/DEC 2007		12/03/2007	12/14/2007	Not Applicable
BI RP	- RADIATION PROTECTION BASELINE INSPECTION	1			
IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment		03/10/2008	03/14/2008	Baseline Inspections
BI RP	- RADIATION PROTECTION BASELINE INSPECTION	1			
IP 7112101	Access Control to Radiologically Significant Areas		04/28/2008	05/02/2008	Baseline Inspections
IP 7112102	ALARA Planning and Controls		04/28/2008	05/02/2008	Baseline Inspections
BI ENG	- ENGINEERING INSERVICE INSPECTION	1			
IP 7111108P	Inservice Inspection Activities - PWR		04/21/2008	05/16/2008	Baseline Inspections
BI ENG	- BIENNIAL MAINTENANCE EFFECTIVENESS INSP.	1			
IP 7111112B	Maintenance Effectiveness		07/21/2008	07/25/2008	Baseline Inspections
BI ENG	- BIENNIAL HEAT SINK INSPECTION	1			
IP 7111107B	Heat Sink Performance		08/04/2008	08/08/2008	Baseline Inspections
BI RP	- RADIATION PROTECTION BASELINE INSPECTION	1			
IP 7112202	Radioactive Material Processing and Transportation		09/22/2008	09/26/2008	Baseline Inspections
IP 71151-BI01	Reactor Coolant System Activity		09/22/2008	09/26/2008	Baseline Inspections
IP 71151-OR01	Occupational Exposure Control Effectiveness		09/22/2008	09/26/2008	Baseline Inspections
IP 71151-PR01	RETS/ODCM Radiological Effluent		09/22/2008	09/26/2008	Baseline Inspections
BI PI&R	- BIENNIAL PI&R INSPECTION	3			
IP 71152B	Identification and Resolution of Problems		10/06/2008	10/24/2008	Baseline Inspections
BI ENG	- ENGINEERING MODIFICATIONS / 50.59 INSP.	2			
IP 7111102	Evaluation of Changes, Tests, or Experiments		11/03/2008	11/21/2008	Baseline Inspections
IP 7111117B	Permanent Plant Modifications		11/03/2008	11/21/2008	Baseline Inspections
BI EP	- EP EXERCISE INSPECTION / PI VERIFICATION	3			
IP 7111401	Exercise Evaluation		11/17/2008	11/21/2008	Baseline Inspections
IP 71151-EP01	Drill/Exercise Performance		11/17/2008	11/21/2008	Baseline Inspections
IP 71151-EP02	ERO Drill Participation		11/17/2008	11/21/2008	Baseline Inspections
IP 71151-EP03	Alert & Notification System		11/17/2008	11/21/2008	Baseline Inspections