

March 2, 2006

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

SUBJECT: ANNUAL ASSESSMENT LETTER AND INSPECTION PLAN - BRAIDWOOD  
STATION, UNITS 1 AND 2 (05000456/2006001; 05000457/2006001)

Dear Mr. Crane:

On February 9, 2006, the NRC staff completed its performance review of Braidwood Station, Units 1 and 2. Our technical staff reviewed performance indicators (PIs) for the most recent quarter and inspection results for the period from January 1 through December 31, 2005. 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 physical protection information. A separate letter designated and marked as "Exempt from Public Disclosure in accordance with 10 CFR 2.390" will include the physical protection review and resultant inspection plan.

Overall, Braidwood Station Units 1 and 2 operated in a manner that preserved public health and safety and fully met all cornerstone objectives. Plant performance for the most recent quarter, as well as for the first three quarters of the assessment cycle, 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 baseline inspections at your facility.

The enclosed inspection plan details the inspections, less those related to physical protection scheduled through September 30, 2007. Significant inspections planned for this year include a Temporary Instruction (TI) 2515/150, "Reactor Pressure Vessel Head and Vessel Head Penetration Nozzles," in April 2006 (Unit 1), and in October 2006 (Unit 2); a Triennial Fire Protection Inspection in June 2006; and a Biennial Problem Identification and Resolution Inspection in November 2006. 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 mid-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 made 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).

If circumstances arise which cause us to change this inspection plan, we will contact you to discuss the change as soon as possible. Please contact me at (630) 829-9620 with any questions you may have regarding this letter or the inspection plan.

Sincerely,

*/RA/*

Richard A. Skokowski, Chief  
Reactor Projects 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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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  
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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  
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**Braidwood**  
**Inspection / Activity Plan**  
**03/01/2006 - 09/30/2007**

Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates Start	Planned Dates End	Inspection Type
	<b>71122.01</b>	<b>- TRITIUM EVENT FOLLOW-UP</b>	<b>3</b>			
1,2	IP 7112201	Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems		02/13/2006	03/31/2006	Baseline Inspections
	<b>ISI</b>	<b>- BRAIDWOOD UNIT 1 ISI &amp; TI-150 INSPECTION</b>	<b>3</b>			
1	IP 2515/150	Reactor Pressure Vessel Head and Vessel Head Penetration Nozzles (NRC ORDER EA-03-		04/17/2006	04/28/2006	Safety Issues
1	IP 7111108P	Inservice Inspection Activities - PWR		04/17/2006	04/28/2006	Baseline Inspections
	<b>FY 2006</b>	<b>- BRAIDWOOD INIT PREP 04/2006</b>	<b>3</b>			
1	W90143	OL - INITIAL EXAM - BRAIDWOOD - APR/MAY 2006		04/03/2006	04/07/2006	Not Applicable
	<b>IP 71121</b>	<b>- ALARA, ACCESS CONTROL</b>	<b>1</b>			
1,2	IP 7112101	Access Control to Radiologically Significant Areas		04/17/2006	04/28/2006	Baseline Inspections
1,2	IP 7112102	ALARA Planning and Controls		04/17/2006	04/28/2006	Baseline Inspections
	<b>FY 2006</b>	<b>- BRAIDWOOD INIT EXAM 05/2006</b>	<b>3</b>			
1	W90143	OL - INITIAL EXAM - BRAIDWOOD - APR/MAY 2006		05/15/2006	05/19/2006	Not Applicable
	<b>FPI</b>	<b>- FIRE PROTECTION INSPECTION</b>	<b>3</b>			
1,2	IP 7111105T	Fire Protection [Triennial]		06/12/2006	06/30/2006	Baseline Inspections
	<b>ROUTINE</b>	<b>- INSTRUMENTATION, ACCESS CONTROL</b>	<b>1</b>			
1,2	IP 7112101	Access Control to Radiologically Significant Areas		07/31/2006	08/04/2006	Baseline Inspections
1,2	IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment		07/31/2006	08/04/2006	Baseline Inspections
	<b>IP 71114</b>	<b>- EP EXERCISE BASELINE</b>	<b>2</b>			
1,2	IP 7111401	Exercise Evaluation		08/07/2006	08/11/2006	Baseline Inspections
1,2	IP 71151	Performance Indicator Verification		08/07/2006	08/11/2006	Baseline Inspections
	<b>H/S</b>	<b>- HEAT SINK INSPECTION</b>	<b>1</b>			
1,2	IP 7111107B	Heat Sink Performance		09/25/2006	09/29/2006	Baseline Inspections
	<b>ISI</b>	<b>- BRAIDWOOD UNIT 2 ISI &amp; TI-150 INSPECTION</b>	<b>2</b>			
2	IP 2515/150	Reactor Pressure Vessel Head and Vessel Head Penetration Nozzles (NRC ORDER EA-03-		10/16/2006	11/03/2006	Safety Issues
2	IP 7111108P	Inservice Inspection Activities - PWR		10/16/2006	11/03/2006	Baseline Inspections
	<b>OUTAGE</b>	<b>- ACCESS CONTROL, ALARA</b>	<b>1</b>			
1,2	IP 7112101	Access Control to Radiologically Significant Areas		10/16/2006	10/20/2006	Baseline Inspections
1,2	IP 7112102	ALARA Planning and Controls		10/16/2006	10/20/2006	Baseline Inspections
1,2	IP 71151	Performance Indicator Verification		10/16/2006	10/20/2006	Baseline Inspections
	<b>PI&amp;R</b>	<b>- PROBLEM IDENTIFICATION AND RESOLUTION</b>	<b>3</b>			
1,2	IP 71152B	Identification and Resolution of Problems		11/27/2006	12/15/2006	Baseline Inspections
	<b>MOD5059</b>	<b>- MODIFICATIONS/50.59 INSPECTION</b>	<b>2</b>			
1,2	IP 7111102	Evaluation of Changes, Tests, or Experiments		01/08/2007	01/26/2007	Baseline Inspections
1,2	IP 7111117B	Permanent Plant Modifications		01/08/2007	01/26/2007	Baseline Inspections

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

**Braidwood**  
**Inspection / Activity Plan**  
**03/01/2006 - 09/30/2007**

Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates Start	Planned Dates End	Inspection Type
	<b>71122.01</b>	<b>- RAD EFFLUENTS</b>	<b>1</b>			
1,2	IP 7112201	Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems		03/12/2007	03/16/2007	Baseline Inspections
1,2	IP 71151	Performance Indicator Verification		03/12/2007	03/16/2007	Baseline Inspections
	<b>71121.01</b>	<b>- ACCESS CONTROL</b>	<b>2</b>			
1,2	IP 7112101	Access Control to Radiologically Significant Areas		06/04/2007	06/08/2007	Baseline Inspections
	<b>CDBI</b>	<b>- COMPONENT DESIGN BASES INSPECTION</b>	<b>5</b>			
1,2	IP 7111121	Component Design Bases Inspection		07/23/2007	08/24/2007	Baseline Inspections
	<b>71122.03</b>	<b>- REMP AND RAM CONTROL</b>	<b>1</b>			
1,2	IP 7112203	Radiological Environmental Monitoring Program (REMP) And Radioactive Material Control P		08/20/2007	08/24/2007	Baseline Inspections
	<b>71111.11</b>	<b>- LIC OPERATOR REQUAL PROGRAM EVALUATION</b>	<b>2</b>			
1,2	IP 7111111B	Licensed Operator Requalification Program		09/24/2007	09/28/2007	Baseline Inspections