

March 4, 2004

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 - BRAIDWOOD STATION, UNITS 1 AND 2
(REPORT 50-456/04-1; 50-457/04-01)

Dear Mr. Crane:

On February 11, 2004, the NRC staff completed its end-of-cycle plant performance assessment of the Braidwood Station, Units 1 and 2. The end-of-cycle review for the Braidwood Station, Unit 1 and 2 involved the participation of all technical divisions in evaluating performance indicators (PIs) for the most recent quarter and inspection results for the period from January 1 through December 31, 2003. 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 so that you will have an opportunity to prepare for these inspections and to inform us of any planned inspections that may conflict with your plant activities.

Overall, Braidwood Unit 1 operated in a manner that preserved public health and safety and fully met all cornerstone objectives. Plant performance during the most recent quarter was in the Regulatory Response Column of the NRC's Action Matrix based on one White PI (Safety System Unavailability, Heat Removal System, Auxiliary Feedwater System) in the Mitigating System Cornerstone. All inspection findings were classified as having very low safety significance (Green) and all remaining PIs indicated performance at an acceptable level (Green).

With respect to previous Unit 1 performance, on July 29, 2003, your staff identified a miscalculation for the April 2001 unavailability time for the 1B auxiliary feedwater pump and in August, your staff submitted corrected information. At that time, it was our understanding that the PI was in the White performance band between April 2001 to the second quarter of 2003. As such, in our August 17, 2003 Mid-Cycle Performance Review letter, Unit 1 was characterized as being in the Regulatory Response Column. Upon further review of your re-submitted PI information, we concluded that for the first quarter of 2003, the PI was actually within the Green performance band; therefore, plant performance for Unit 1 was actually in the Licensee Response Column, not in the Regulatory Response Column as indicated in the August letter. Problems with governor oil level and the turbo charger blower in the second and third quarter of 2003, respectively, resulted in increased fault exposure and unplanned maintenance hours for the 1B auxiliary feedwater pump. This decline in performance resulted the PI moving back into the White performance band. Therefore, during the second, third, and fourth quarters of 2003, plant performance for Unit 1 was in the Regulatory Response Column of the NRC Action Matrix. Accordingly, in addition to the reactor oversight process baseline

inspections, we plan to conduct Supplemental Inspection 95001 "Inspection for One or Two White Inputs in a Strategic Performance Area" at your Unit 1 facility to better understand the declining performance of the auxiliary feedwater system.

Overall, Braidwood Unit 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 only reactor oversight process baseline inspections at your Unit 2 facility through September 30, 2005.

The enclosed inspection plan details the inspections scheduled through September 30, 2005. In addition to the supplemental inspection discussed above, one infrequently performed inspection, Modifications and 50.59 inspection, is planned. The inspection plan is provided to minimize the resource impact on your staff and to allow for scheduling conflicts and personnel availability to be resolved in advance of inspector arrival onsite. Routine resident inspections are not listed due to their ongoing and continuous nature. The inspections in the last 12 months of the inspection plan are tentative and may be revised at the mid-cycle review meeting.

As you are aware, the NRC has issued several Orders and threat advisories to enhance security capabilities and improve guard force readiness since the terrorist attacks on September 11, 2001. We have conducted inspections to review your implementation of these requirements and have monitored your actions in response to changing threat conditions. For calendar year 2004, we plan to continue inspections of Order implementation combined with newly developed portions of the security baseline inspection program.

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). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

C. Crane

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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 Ann Marie Stone, Chief, Reactor Projects Branch 3 at (630) 829-9729 with any questions you may have regarding this letter or the inspection plan.

Sincerely,

/P. Hiland acting for/

Steven A. Reynolds, Acting Director
Division of Reactor Projects

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

Enclosure: Braidwood Station Units 1 and 2 Inspection/Activity Plan

See Attached Distribution

C. Crane

-3-

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Steven A. Reynolds, Acting Director
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cc w/encl: Site Vice President - Braidwood
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Regulatory Assurance Manager - Braidwood
Chief Operating Officer
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J. Church, Kendall County Board Chairman
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J. Lutz, Director, Grundy County Emergency Management
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The Honorable Richard Ellis
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The Honorable Joseph Fracaro
The Honorable Elmer Rolando
The Honorable Harvey Taylor
The Honorable Tony McGann
The Honorable Joe Cook
L. Armour, Channahon Interim Village Administrator
The Honorable Richard Chapman
K. Carroll, Shorewood Village Administrator
The Honorable Robert Blum
The Honorable Marchel Michael
The Honorable Donald Green
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AJM

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Project Director, NRR

Project Mgr., NRR

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JLC1

GEG

HBC

RML2

SRI Braidwood

DRPIII

DRSIII

PLB1

JRK1

Braidwood
Inspection / Activity Plan
03/01/2004 - 09/30/2005

Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates		Inspection Type
				Start	End	
	7112103	- NUCLEAR INSTRUMENTATION	2			
1,2	IP 7112101	Access Control to Radiologically Significant Areas		04/19/2004	04/23/2004	Baseline Inspections
1,2	IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment		04/19/2004	04/23/2004	Baseline Inspections
	INSP	- LIQUID AND GAS EFFLUENT INPECTION	1			
1,2	IP 7112203	Radiological Environmental Monitoring Program		04/19/2004	04/23/2004	Baseline Inspections
	95001	- SUPP. INSP FOR AFW WHITE PI	1			
1	IP 95001	Supplemental Inspection For One Or Two White Inputs In A Strategic Performance Area		04/26/2004	04/30/2004	Supplemental Progra
	FY 2004	- BRAIDWOOD INIT PREP 01/2004	3			
1	W90071	OL - INITIAL EXAM - BRAIDWOOD - JAN/FEB 2004		06/14/2004	06/18/2004	Not Applicable
	FY 2004	- BRAIDWOOD INIT EXAM 02/2004	3			
1	W90071	OL - INITIAL EXAM - BRAIDWOOD - JAN/FEB 2004		07/12/2004	07/16/2004	Not Applicable
	ISI 1	- INSERVICE INSP/TI-152 UNIT 1	1			
1	IP 2515/152	Reactor Pressure Vessel Lower Head Penetration Nozzles (NRC Bulletin 2003-02)		10/04/2004	10/18/2004	Safety Issues
1	IP 7111108P	Inservice Inspection Activities - PWR		10/04/2004	10/18/2004	Baseline Inspections
	SG BASE	- SG BASELINE 2004	2			
1,2	IP 7113001	Access Authorization		10/04/2004	10/08/2004	Baseline Inspections
1,2	IP 7113002	Access Control		10/04/2004	10/08/2004	Baseline Inspections
1,2	IP 7113008	Fitness For Duty Program		10/04/2004	10/08/2004	Baseline Inspections
1,2	IP 71151	Performance Indicator Verification		10/04/2004	10/08/2004	Baseline Inspections
	7112102	- OUTAGE ALARA	3			
1,2	IP 7112101	Access Control to Radiologically Significant Areas		10/04/2004	10/15/2004	Baseline Inspections
1,2	IP 7112102	ALARA Planning and Controls		10/04/2004	10/15/2004	Baseline Inspections
1,2	IP 71151	Performance Indicator Verification		10/04/2004	10/15/2004	Baseline Inspections
	71114	- BASELINE EP EXERCISE INSP	1			
1,2	IP 7111401	Exercise Evaluation		11/15/2004	11/19/2004	Baseline Inspections
1,2	IP 71151	Performance Indicator Verification		11/15/2004	11/19/2004	Baseline Inspections
	HEATSKB	- BIENNIAL HEAT SINK INSPECTION (DRS)	1			
1,2	IP 7111107B	Heat Sink Performance		01/31/2005	02/04/2005	Baseline Inspections
	71122.01	- EFFLUENTS AND ACCESS CONTROL	1			
1,2	IP 7112101	Access Control to Radiologically Significant Areas		01/10/2005	01/14/2005	Baseline Inspections
1,2	IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment		01/10/2005	01/14/2005	Baseline Inspections
1,2	IP 7112201	Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems		01/10/2005	01/14/2005	Baseline Inspections
1,2	IP 7112202	Radioactive Material Processing and Transportation		01/10/2005	01/14/2005	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
03/01/2004 - 09/30/2005

Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates		Inspection Type
				Start	End	
	MOD/5059 - MODIFICATIONS/50.59 INSPECTION		2			
1,2	IP 7111102	Evaluation of Changes, Tests, or Experiments		03/14/2005	04/01/2005	Baseline Inspections
1,2	IP 7111117B	Permanent Plant Modifications		03/14/2005	04/01/2005	Baseline Inspections
	OUTAGE - ACCESS CONTROL, ALARA		1			
1,2	IP 7112101	Access Control to Radiologically Significant Areas		04/11/2005	04/15/2005	Baseline Inspections
1,2	IP 7112102	ALARA Planning and Controls		04/11/2005	04/15/2005	Baseline Inspections
	ISI - UNIT 2 ISI/TI-150 INSPECTION		2			
2	IP 2515/150	Reactor Pressure Vessel Head and Vessel Head Penetration Nozzles (NRC Bulletin 2002-0		04/18/2005	04/29/2005	Safety Issues
2	IP 7111108P	Inservice Inspection Activities - PWR		04/18/2005	04/29/2005	Baseline Inspections
	OUTAGE - ACCESS CONTROL, ALARA		1			
1,2	IP 7112101	Access Control to Radiologically Significant Areas		05/02/2005	05/06/2005	Baseline Inspections
1,2	IP 7112102	ALARA Planning and Controls		05/02/2005	05/06/2005	Baseline Inspections
	MAINT - BIENNIAL MAINTENANCE RULE INSPECTION		1			
1,2	IP 7111112B	Maintenance Effectiveness		08/08/2005	08/12/2005	Baseline Inspections
	SSDI - SAFETY SYSTEM DESIGN INSPECTION		5			
1,2	IP 7111121	Safety System Design and Performance Capability		08/15/2005	09/02/2005	Baseline Inspections
	71114 - BASELINE EP INSPECTION		1			
1,2	IP 7111402	Alert and Notification System Testing		08/08/2005	08/12/2005	Baseline Inspections
1,2	IP 7111403	Emergency Response Organization Augmentation Testing		08/08/2005	08/12/2005	Baseline Inspections
1,2	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies		08/08/2005	08/12/2005	Baseline Inspections
1,2	IP 71151	Performance Indicator Verification		08/08/2005	08/12/2005	Baseline Inspections
	71122.03 - REMP, PI VERIFICATION		1			
1,2	IP 7112203	Radiological Environmental Monitoring Program		08/22/2005	08/26/2005	Baseline Inspections
1,2	IP 71151	Performance Indicator Verification		08/22/2005	08/26/2005	Baseline Inspections
	71111.11 - LIC OPERATOR REQUAL PROGRAM EVALUATION		2			
1,2	IP 7111111B	Licensed Operator Requalification Program		09/12/2005	09/16/2005	Baseline Inspections