

August 30, 2004

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 -  
BYRON STATION

Dear Mr. Crane:

On August 11, 2004, the NRC staff completed its mid-cycle plant performance assessment of the Byron Station. The mid-cycle review for the Byron Station involved the participation of all technical divisions in evaluating performance for the first half of the calendar year 2004 assessment cycle. The process included a review of 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 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.

For the most recent quarter, plant performance for Unit 1 and Unit 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 only reactor oversight process (ROP) baseline inspections at your facility through March 31, 2006.

The enclosed inspection plan details the inspections scheduled through March 31, 2006. The following infrequently performed inspections are planned: Safety System Design and Performance Capability inspection in January 2005, Problem Identification and Resolution inspection in June 2005, and Emergency Preparedness Exercise evaluation in July 2005. 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 end-of-cycle review meeting.

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 the inspection plan, we will contact you to discuss the change as soon as possible. Please contact me at (630) 829-9729 with any questions you may have regarding this letter or the inspection plan.

Sincerely,

*/RA/*

Ann Marie Stone, Chief  
Branch 3  
Division of Reactor Projects

Docket Nos. 50-454; 50-455  
License Nos. NPF-37; NPF-66

Enclosure: Byron Station Inspection/Activity Plan

cc w/encl: Site Vice President - Byron Station  
Plant Manager - Byron Station  
Regulatory Assurance Manager - Byron Station  
Chief Operating Officer  
Senior Vice President - Nuclear Services  
Vice President - Mid-West Operations Support  
Vice President - Licensing and Regulatory Affairs  
Director Licensing  
Manager Licensing - Braidwood and Byron  
Senior Counsel, Nuclear  
Document Control Desk - Licensing  
Assistant Attorney General  
Illinois Department of Nuclear Safety  
State Liaison Officer, State of Illinois  
State Liaison Officer, State of Wisconsin  
Chairman, Illinois Commerce Commission

C. Crane

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Director Licensing  
Manager Licensing - Braidwood and Byron  
Senior Counsel, Nuclear  
Document Control Desk - Licensing  
Assistant Attorney General  
Illinois Department of Nuclear Safety  
State Liaison Officer, State of Illinois  
State Liaison Officer, State of Wisconsin  
Chairman, Illinois Commerce Commission

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**Byron**  
**Inspection / Activity Plan**  
**09/01/2004 - 03/31/2006**

Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates		Inspection Type
				Start	End	
	<b>IP 71122</b>	<b>- RAM PROCESSING &amp; TRANSPORTATION</b>	<b>1</b>			
1, 2	IP 7112202	Radioactive Material Processing and Transportation		09/13/2004	09/17/2004	Baseline Inspections
	<b>INSP</b>	<b>- EMER. PREP. INSPECTION</b>	<b>1</b>			
1, 2	IP 7111402	Alert and Notification System Testing		11/01/2004	11/05/2004	Baseline Inspections
1, 2	IP 7111403	Emergency Response Organization Augmentation Testing		11/01/2004	11/05/2004	Baseline Inspections
1, 2	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies		11/01/2004	11/05/2004	Baseline Inspections
1, 2	IP 711151	Performance Indicator Verification		11/01/2004	11/05/2004	Baseline Inspections
	<b>IP 71121</b>	<b>- RP ACCESS CTRL/ALARA INSPECTION</b>	<b>1</b>			
1, 2	IP 7112101	Access Control to Radiologically Significant Areas		11/29/2004	12/03/2004	Baseline Inspections
1, 2	IP 7112102	ALARA Planning and Controls		11/29/2004	12/03/2004	Baseline Inspections
1, 2	IP 711151	Performance Indicator Verification		11/29/2004	12/03/2004	Baseline Inspections
	<b>SSDPC</b>	<b>- SAFETY SYSTEM DESIGN &amp; PERFORMANCE</b>	<b>5</b>			
1, 2	IP 7111121	Safety System Design and Performance Capability		01/24/2005	02/11/2005	Baseline Inspections
	<b>IP 71121</b>	<b>- RP INSTRUMENTATION/PROT EQUIP INSP</b>	<b>1</b>			
1, 2	IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment		02/14/2005	02/18/2005	Baseline Inspections
	<b>ISI</b>	<b>- UNIT 1 ISI/TI-150 INSPECTION</b>	<b>1</b>			
1	IP 7111108P	Inservice Inspection Activities - PWR		03/01/2005	03/24/2005	Baseline Inspections
	<b>IP 71121</b>	<b>- RP OUTAGE ACCESS CTRL/ALARA INSP</b>	<b>1</b>			
1, 2	IP 7112101	Access Control to Radiologically Significant Areas		03/14/2005	03/18/2005	Baseline Inspections
1, 2	IP 7112102	ALARA Planning and Controls		03/14/2005	03/18/2005	Baseline Inspections
	<b>PI&amp;R</b>	<b>- PROBLEM IDENTIFICATION AND RESOLUTION</b>	<b>4</b>			
1, 2	IP 71152B	Identification and Resolution of Problems		06/13/2005	07/01/2005	Baseline Inspections
	<b>IP 71122</b>	<b>- RP REMP/RAM CONTROL INSPECTION</b>	<b>1</b>			
1, 2	IP 7112203	Radiological Environmental Monitoring Program		06/06/2005	06/10/2005	Baseline Inspections
1, 2	IP 711151	Performance Indicator Verification		06/06/2005	06/10/2005	Baseline Inspections
	<b>71114</b>	<b>- EP EXERCISE &amp; EP PI INSP</b>	<b>2</b>			
1, 2	IP 7111401	Exercise Evaluation		07/18/2005	07/22/2005	Baseline Inspections
1, 2	IP 711151	Performance Indicator Verification		07/18/2005	07/22/2005	Baseline Inspections
	<b>ISI</b>	<b>- UNIT 2 ISI INSPECTION/TI-150</b>	<b>2</b>			
2	IP 2515/150	Reactor Pressure Vessel Head and Vessel Head Penetration Nozzles (NRC Bulletin 2002-02)		09/26/2005	10/07/2005	Safety Issues
2	IP 7111108P	Inservice Inspection Activities - PWR		09/26/2005	10/07/2005	Baseline Inspections
	<b>FY 2006</b>	<b>- BYRON INIT PREP 10/2005</b>	<b>3</b>			
1	W90122	OL - INITIAL EXAM - BYRON - OCT/NOV 2005		10/03/2005	10/07/2005	Not Applicable

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

**Byron**  
**Inspection / Activity Plan**  
**09/01/2004 - 03/31/2006**

Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates		Inspection Type
				Start	End	
	<b>IP 71121</b>	<b>- RP OUTAGE ACCESS CTRL &amp; ALARA INSP</b>	<b>1</b>			
1, 2	IP 7112101	Access Control to Radiologically Significant Areas		10/03/2005	10/07/2005	Baseline Inspections
1, 2	IP 7112102	ALARA Planning and Controls		10/03/2005	10/07/2005	Baseline Inspections
1, 2	IP 71151	Performance Indicator Verification		10/03/2005	10/07/2005	Baseline Inspections
	<b>HEATSKB</b>	<b>- BIENNIAL HEAT SINK INSPECTION (DRS)</b>	<b>1</b>			
1, 2	IP 7111107B	Heat Sink Performance		10/31/2005	11/04/2005	Baseline Inspections
	<b>FY 2006</b>	<b>- BYRON INIT EXAM 10&amp;11/2005</b>	<b>3</b>			
1	W90122	OL - INITIAL EXAM - BYRON - OCT/NOV 2005		10/31/2005	11/11/2005	Not Applicable
	<b>IP 71121</b>	<b>- RP POST-OUTAGE ACCESS CTRL &amp; ALARA INSP</b>	<b>1</b>			
1, 2	IP 7112101	Access Control to Radiologically Significant Areas		01/09/2006	01/13/2006	Baseline Inspections
1, 2	IP 7112102	ALARA Planning and Controls		01/09/2006	01/13/2006	Baseline Inspections