

March 4, 2004

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

SUBJECT: ANNUAL ASSESSMENT LETTER - QUAD CITIES NUCLEAR POWER
STATION (REPORT 50-254/04-01; 50-265/04-01)

Dear Mr. Crane:

On February 11, 2004, the NRC staff completed its end-of-cycle plant performance assessment of the Quad Cities Nuclear Power Station. The end-of-cycle review 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, 2003, 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, Quad Cities operated in a manner that preserved public health and safety and fully met the cornerstone objectives. Plant performance for the most recent quarter 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 baseline inspections at your facility through March 31, 2005.

In our annual assessment letter dated March 4, 2003, we advised you of a substantive cross-cutting issue in the area of human performance. You implemented a number of human performance improvement initiatives which resulted in a decline in human performance errors in 2003. Therefore, human performance is no longer considered a substantive cross-cutting issue. Notwithstanding, we encourage you to continue your initiatives in this area.

Both the extended power uprates and the high radiological source term in both units continued to challenge your organization in minimizing the number of plant outages and the collective radiological exposure to workers. Quad Cities Units 1 and 2 implemented 17.8 percent extended power uprates in November 2002 and February 2002, respectively. Since that time, both units have experienced multiple equipment deficiencies which were either caused by, or exacerbated by, the extended power uprates. In mid-2002, the Unit 2 steam dryer cover plate failed due to high cycle fatigue caused by high frequency acoustic resonance. You implemented corrective actions to repair the dryer cover plate. However, your extent of condition review for this issue did not address the potential for high cycle fatigue at low

frequencies. As a result, a second Unit 2 dryer failure occurred in July 2003. In November 2003, the Unit 1 steam dryer failed and a piece of the dryer was found missing. Additionally, an actuator for one of the electromatic relief valves was damaged such that it would not have performed the automatic depressurization function. The radiological source term for both units is one of the highest in the country, which has resulted in the collective radiological exposure to workers also being among the highest for all plants. The major isotopic contributor to the source term is Cobalt-60. You have developed a significant source term reduction program which involves the reduction of stellite components, chemical decontamination of piping systems and a new, experimental process for cleaning fuel. We will continue to follow your progress in source term reduction.

The enclosed inspection plan details the inspections scheduled through September 30, 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 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).

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 Mark Ring of my staff at 630/829-9703 with any questions you may have regarding this letter or the inspection plan.

Sincerely,

/P. Hiland acting for/

Steve A. Reynolds, Acting Director
Division of Reactor Projects

Docket Nos. 50-254; 50-265
License Nos. DPR-29; DPR-30

Enclosure: Quad Cities Inspection/Activity Plan

See Attached Distribution

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Steve A. Reynolds, Acting Director
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cc w/encl: Site Vice President - Quad Cities Nuclear Power Station
Quad Cities Nuclear Power Station Plant Manager
Regulatory Assurance Manager - Quad Cities
Chief Operating Officer
Senior Vice President - Nuclear Services
Senior Vice President - Mid-West Regional
Operating Group
Vice President - Mid-West Operations Support
Vice President - Licensing and Regulatory Affairs
Director Licensing - Mid-West Regional
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Chairman, Illinois Commerce Commission
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County Board
M. Grchan, Rock Island County Sheriff
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Disaster Coordinator
T. Arduini, Chairman, Whiteside County Board
R. Schipper, Whiteside County Sheriff
R. McKenna, Emergency Service Coordinator
L. Todtz, Chairman, Clinton Board of Supervisors
R. Lincoln, Clinton County Sheriff
W. Henry, Coordinator, Emergency Management
C. Ray Wierson, Scott County Administrator
D. Conard, Scott County Sheriff
R. Bergen, Coordinator, Scott County Emergency Management
The Honorable Rick Dettman
The Honorable Marj Dolan
D. Johnson, President, Village of Port Byron
J. Piatt, President, Village of Cordova
The Honorable Gary Kampe
The Honorable LaMetta Wynn
J. Kooistra, Clinton City Administrator
The Honorable Richard Meland
The Honorable Vernon Spring
E. N. Choate, LeClaire City Administrator
The Honorable Daniel Dawson
The Honorable Al Moore
INPO

C. Crane

-4-

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Quad Cities
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	
	RENEWAL	- LICENSE RENEWAL OPEN ITEM INSPECTION	1			
1, 2	IP 71002	License Renewal Inspection		03/15/2004	03/19/2004	License Renewal Insp
	7112102	- OUTAGE INSPECTION	2			
1, 2	IP 7112101	Access Control to Radiologically Significant Areas		02/23/2004	03/05/2004	Baseline Inspections
1, 2	IP 7112102	ALARA Planning and Controls		02/23/2004	03/05/2004	Baseline Inspections
	ISI	- ISI FOR UNIT 2	1			
1, 2	IP 7111108G	Inservice Inspection Activities - BWR		03/01/2004	03/05/2004	Baseline Inspections
	ISFSI	- ONSITE FAB AND CONSTRUCTION OF ISFSI	1			
1, 2	IP 60853	On-Site Fabrication Of Components And Construction On An ISFSI		04/01/2004	08/31/2004	Other Routine
	SSDI	- SAFETY SYSTEM DESIGN	6			
1, 2	IP 7111121	Safety System Design and Performance Capability		05/10/2004	05/28/2004	Baseline Inspections
	SG BASE	- SG BASELINE 2004	2			
1, 2	IP 7113001	Access Authorization		05/10/2004	05/14/2004	Baseline Inspections
1, 2	IP 7113002	Access Control		05/10/2004	05/14/2004	Baseline Inspections
1, 2	IP 7113008	Fitness For Duty Program		05/10/2004	05/14/2004	Baseline Inspections
1, 2	IP 71151	Performance Indicator Verification		05/10/2004	05/14/2004	Baseline Inspections
	7112102	- ALARA, ACCESS CONTROL	1			
1, 2	IP 7112101	Access Control to Radiologically Significant Areas		05/17/2004	05/21/2004	Baseline Inspections
1, 2	IP 7112102	ALARA Planning and Controls		05/17/2004	05/21/2004	Baseline Inspections
	71114	- BASELINE EP EXERCISE INSP	4			
1, 2	IP 7111401	Exercise Evaluation		07/19/2004	07/23/2004	Baseline Inspections
1, 2	IP 71151	Performance Indicator Verification		07/19/2004	07/23/2004	Baseline Inspections
	7112202	- RAD WASTE TRANSPORTATION	2			
1, 2	IP 7112101	Access Control to Radiologically Significant Areas		08/16/2004	08/20/2004	Baseline Inspections
1, 2	IP 7112202	Radioactive Material Processing and Transportation		08/16/2004	08/20/2004	Baseline Inspections
	PI&R	- PROBLEM ID AND RESOLUTION	4			
1, 2	IP 71152B	Identification and Resolution of Problems		10/18/2004	11/05/2004	Baseline Inspections
	7112201	- EFFLUENTS, PI VERIFICATION	1			
1, 2	IP 7112101	Access Control to Radiologically Significant Areas		11/15/2004	11/19/2004	Baseline Inspections
1, 2	IP 7112201	Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems		11/15/2004	11/19/2004	Baseline Inspections
1, 2	IP 71151	Performance Indicator Verification		11/15/2004	11/19/2004	Baseline Inspections
	71114	- BASELINE EP INSPECTION	1			
1, 2	IP 7111402	Alert and Notification System Testing		01/31/2005	02/04/2005	Baseline Inspections
1, 2	IP 7111403	Emergency Response Organization Augmentation Testing		01/31/2005	02/04/2005	Baseline Inspections

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

Quad Cities
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	
	71114	- BASELINE EP INSPECTION	1			
1,2	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies		01/31/2005	02/04/2005	Baseline Inspections
1,2	IP 71151	Performance Indicator Verification		01/31/2005	02/04/2005	Baseline Inspections
	ISI	- UNIT 1 ISI INSPECTION	2			
1	IP 7111108G	Inservice Inspection Activities - BWR		03/07/2005	03/11/2005	Baseline Inspections
	OUTAGE	- ACCESS CONTROL AND ALARA	1			
1,2	IP 7112101	Access Control to Radiologically Significant Areas		03/07/2005	03/11/2005	Baseline Inspections
1,2	IP 7112102	ALARA Planning and Controls		03/07/2005	03/11/2005	Baseline Inspections
	FY 2005	- QUAD CITIES INIT PREP 04/2005	3			
1	W90129	OL - INITIAL EXAM - QUAD CITIES - APR/MAY 2005		04/04/2005	04/08/2005	Not Applicable
	FY 2005	- QUAD CITIES INIT EXAM 05/2005	3			
1	W90129	OL - INITIAL EXAM - QUAD CITIES - APR/MAY 2005		05/02/2005	05/06/2005	Not Applicable
	71122.03	- REMP, ACCESS CONTROL	1			
1,2	IP 7112101	Access Control to Radiologically Significant Areas		06/27/2005	07/01/2005	Baseline Inspections
1,2	IP 7112203	Radiological Environmental Monitoring Program		06/27/2005	07/01/2005	Baseline Inspections
	MAINT	- BIENNIAL MAINTENANCE RULE INSPECTION	1			
1,2	IP 7111112B	Maintenance Effectiveness		08/15/2005	08/19/2005	Baseline Inspections
	MOD/5059	- MODIFICATIONS/50.59 INSPECTION	2			
1,2	IP 7111102	Evaluation of Changes, Tests, or Experiments		09/12/2005	09/30/2005	Baseline Inspections
1,2	IP 7111117B	Permanent Plant Modifications		09/12/2005	09/30/2005	Baseline Inspections

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