

August 30, 2004

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

SUBJECT: MID-CYCLE PERFORMANCE REVIEW AND INSPECTION PLAN -  
QUAD CITIES NUCLEAR POWER STATION (REPORT 50-254/05-01;  
50-265/05-01)

Dear Mr. Crane:

On August 11, 2004, the NRC staff completed its mid-cycle plant performance assessment of the Quad Cities Nuclear Power Station. The mid-cycle review 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.

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 reactor oversight process baseline inspections at your facility through March 31, 2006.

As discussed in our Annual Assessment Letter dated March 4, 2004, extended power uprate (EPU) implementation and the high radiological source term for both units continued to challenge your organization. In a letter to the NRC dated April 2, 2004, you provided new information and commitments associated with the discovery of cracking in a previously repaired area of the Unit 2 steam dryer. The commitments included limiting the operation of both units to the maximum original licensed power level, repairing the Unit 1 electromatic relief valves prior to increasing power to EPU levels (the Unit 2 valves have been repaired), and providing additional commitments for obtaining NRC acceptance prior to resuming continuous operation of both units at EPU levels. We acknowledged this letter on April 20, 2004. In a letter dated May 12, 2004, you formally documented your commitments and plans related to extended power uprate operation. Representatives from Exelon and the NRC plan to meet in the third quarter of 2004 to discuss the results of the review to identify potential EPU-related equipment vulnerabilities and the plans to monitor the performance of the steam dryers and other potentially affected components. During the February 2004 Unit 2 refueling outage, you

chemically decontaminated portions of the reactor recirculation piping, installed permanent shielding in the drywell, and replaced the low pressure turbine buckets as part of your source term reduction project. These efforts resulted in a 75 percent reduction in drywell dose rates and a 45 percent reduction in elemental cobalt.

The enclosed inspection plan details the inspections scheduled through March 31, 2006. 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. The plan contains an inspection using Temporary Instruction (TI) 2515/159, "Review of Generic Letter 89-13, Service Water System Problems Affecting Safety-Related Equipment." This TI is in response to the Davis-Besse Reactor Vessel Head Degradation Lessons-Learned Task Force and is being performed at a sample of nuclear power plants across the country. The plan also contains inspections using Independent Spent Fuel Storage Installation procedures. 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 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).

Sincerely,

*/RA/*

Mark A. Ring, Chief  
Branch 1  
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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Mark A. Ring, Chief  
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cc w/encl: Site Vice President - Quad Cities Nuclear Power Station  
Plant Manager - Quad Cities Nuclear Power Station  
Regulatory Assurance Manager - Quad Cities Nuclear Power Station  
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  
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Chairman, Illinois Commerce Commission  
D. Tubbs, Manager of Nuclear  
MidAmerican Energy Company

ADAMS Distribution:

DFT

DWW

Project Director, NRR

Project Mgr., NRR

RidsNrrDipmlipb

JLC1

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HBC

RML2

SRI Quad Cities

DRPIII

DRSIII

PLB1

JRK1

**Quad Cities**  
**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>TI ON SW</b>	<b>- TI 2515/159: GL 89-13 SERVICE WATER</b>	<b>3</b>			
1, 2	IP 2515/159	Review of Generic Letter 89-13: Service Water System Problems Affecting Safety-Related Equi		09/13/2004	09/17/2004	Safety Issues
	<b>ISFSI</b>	<b>- ONSITE FAB AND CONSTRUCTION OF ISFSI</b>	<b>1</b>			
1, 2	IP 60853	On-Site Fabrication Of Components And Construction On An ISFSI		08/02/2004	12/31/2004	Other Routine
	<b>PI&amp;R</b>	<b>- PROBLEM ID AND RESOLUTION</b>	<b>4</b>			
1, 2	IP 71152B	Identification and Resolution of Problems		10/18/2004	11/05/2004	Baseline Inspections
	<b>7112201</b>	<b>- EFFLUENTS, PI VERIFICATION</b>	<b>1</b>			
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
	<b>71114</b>	<b>- BASELINE EP INSPECTION</b>	<b>1</b>			
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
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
	<b>ISI</b>	<b>- UNIT 1 ISI INSPECTION</b>	<b>1</b>			
1	IP 7111108G	Inservice Inspection Activities - BWR		03/07/2005	03/11/2005	Baseline Inspections
	<b>OUTAGE</b>	<b>- ACCESS CONTROL AND ALARA</b>	<b>1</b>			
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
	<b>FY 2005</b>	<b>- QUAD CITIES INIT PREP 04/2005</b>	<b>3</b>			
1	W90129	OL - INITIAL EXAM - QUAD CITIES - APR/MAY 2005		04/04/2005	04/08/2005	Not Applicable
	<b>FY 2005</b>	<b>- QUAD CITIES INIT EXAM 05/2005</b>	<b>3</b>			
1	W90129	OL - INITIAL EXAM - QUAD CITIES - APR/MAY 2005		05/02/2005	05/06/2005	Not Applicable
	<b>71122.03</b>	<b>- REMP, ACCESS CONTROL</b>	<b>1</b>			
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
	<b>MAINT</b>	<b>- BIENNIAL MAINTENANCE RULE INSPECTION</b>	<b>1</b>			
1, 2	IP 711112B	Maintenance Effectiveness		08/15/2005	08/19/2005	Baseline Inspections
	<b>ISFSI</b>	<b>- ISFSI INSPECTION ACTIVITIES</b>	<b>1</b>			
1, 2	IP 60854	Preoperational Testing Of An ISFSI		08/01/2005	09/30/2005	Other Routine
1, 2	IP 60856	Review of 10 CFR 72.212(b) Evaluations		08/01/2005	09/30/2005	Other Routine
1, 2	IP 60857	Review of 10 CFR 72.48 Evaluations		08/01/2005	10/31/2005	Other Routine
1, 2	IP 60855	Operation Of An ISFSI		09/01/2005	10/31/2005	Other Routine

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

**Quad Cities**  
**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>MOD/5059</b>	<b>- MODIFICATIONS/50.59 INSPECTION</b>	<b>3</b>			
1, 2	IP 7111102	Evaluation of Changes, Tests, or Experiments		10/03/2005	10/07/2005	Baseline Inspections
1, 2	IP 7111117B	Permanent Plant Modifications		10/03/2005	10/07/2005	Baseline Inspections
	<b>71111.11</b>	<b>- LIC OPERATOR REQUAL PROGRAM EVALUATION</b>	<b>2</b>			
1, 2	IP 7111111B	Licensed Operator Requalification Program		10/24/2005	10/28/2005	Baseline Inspections
	<b>71121.03</b>	<b>- INSTRUMENTATION</b>	<b>1</b>			
1, 2	IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment		11/14/2005	11/18/2005	Baseline Inspections
1, 2	IP 71151	Performance Indicator Verification		11/14/2005	11/18/2005	Baseline Inspections
	<b>71121.02</b>	<b>- ALARA, ACCESS CONTROL</b>	<b>1</b>			
1, 2	IP 7112101	Access Control to Radiologically Significant Areas		03/13/2006	03/27/2006	Baseline Inspections
1, 2	IP 7112102	ALARA Planning and Controls		03/13/2006	03/27/2006	Baseline Inspections
	<b>ISI</b>	<b>- UNIT 2 ISI</b>	<b>1</b>			
2	IP 7111108G	Inservice Inspection Activities - BWR		03/20/2006	03/24/2006	Baseline Inspections