August 31, 2006

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

Dear Mr. Crane:

On August 7, 2006, the NRC staff completed its performance review of the Quad Cities Nuclear Power Station for the first half of the calendar year 2006 assessment cycle. Our technical staff reviewed 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.

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.

Plant performance for the most recent quarter for Quad Cities Unit 1 was within the Regulatory Response column of the NRC's Action Matrix based on one inspection finding being classified as having low to moderate safety significance (White) in the mitigating systems cornerstone. The White finding and related violation were finalized in a letter dated June 29, 2006, and related to the failure to verify that the electromagnetic relief valve (ERV) actuator design was suitable for operation at the increased vibration levels experienced at extended power uprate (EPU) power levels. As a result, in addition to conducting the reactor oversight process baseline inspection at Unit 1, a supplemental inspection using Inspection Procedure 95001, "Supplemental Inspection for One or Two White Inputs in a Strategic Performance Area," is tentatively planned to be conducted in the first quarter of 2007, pending the completion of your planned corrective actions, described in your response letter as scheduled for the end of 2006.

Plant performance for the most recent quarter for 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 reactor oversight process baseline inspections at Unit 2.
The enclosed inspection plan details the inspections, less those related to physical protection scheduled through March 31, 2008. 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. In addition, the resident inspectors plan to perform Temporary Inspection 2515/169, "Mitigating Systems Performance Index (MSPI) Verification," before the end of calendar year 2006. The inspections in the last nine months of the inspection plan are tentative and may be revised at the end-of-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 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 the inspection plan, we will contact you to discuss the change as soon as possible. Please contact Mark A. Ring at 630-829-9703 with any questions you may have regarding this letter or the inspection plan.

Sincerely,

/RA/

Mark A. Satorius, Director
Division of Reactor Projects

Docket Nos. 50-254; 50-265; 72-053
License Nos. DPR-29; DPR-30

Enclosure:
Quad Cities Inspection/Activity Plan

DISTRIBUTION:
See next page
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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
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Whiteside County Sheriff
Coordinator, Whiteside County Emergency Services
Chairman, Board of Supervisors
Clinton County Sheriff
Coordinator, Clinton County Emergency Management
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Scott County Sheriff
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President, Village of Port Byron
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PLB1
TXN
ROPreports@nrc.gov (inspection reports, final SDP letters, any letter with an IR number)
## Quad Cities
### Inspection / Activity Plan
**09/01/2006 - 03/31/2008**

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<tr>
<th>Unit Number</th>
<th>Inspection Activity</th>
<th>Title</th>
<th>No. of Staff on Site</th>
<th>Planned Dates Start</th>
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