March 2, 2005

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 - DRESDEN NUCLEAR POWER STATION

(REPORT 05000237/200501; 05000249/200501)

Dear Mr. Crane:

On February 9, 2005, the NRC staff completed its end-of-cycle plant performance assessment of the Dresden Nuclear Power Station. The end-of-cycle review for Dresden Nuclear Power Station involved the participation of all reactor technical divisions in evaluating performance indicators (PIs) for the most recent quarter and inspection results for the period from January 1 through December 31, 2004. 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.

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.

Overall, Dresden operated in a manner that preserved public health and safety and fully met all 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).

While plant performance for the most recent quarter is within the licensee response column of the Action Matrix, there were safety significant performance indicators that were other than Green during the first three quarters of the assessment cycle. Dresden Unit 2 performance entered the Regulatory Response Column of the Action Matrix in the second quarter of 2004, based on one White PI (unplanned scrams per 7000 critical hours) in the Initiating Events Cornerstone. You conducted a root cause investigation to determine the causes and implemented corrective actions for each scram. In a supplemental inspection, conducted in October 2004, we concluded that you had appropriately addressed the causes of each reactor scram. This PI returned to Green in the third quarter of 2004. For Dresden Unit 3, plant performance was in the Regulatory Response Column of the NRC's Action Matrix for the first 2 quarters of 2004, based on a White high pressure coolant injection (HPCI) safety system unavailability PI in the Mitigating Systems Cornerstone. Your previously completed root cause investigation identified causes and proposed corrective actions for this issue. We completed

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our supplemental inspection on this PI in 2003, which determined that you appropriately addressed this issue. This PI went Green in the third quarter of 2004. Therefore, we plan to conduct only baseline inspections at your facility through September 30, 2006. In addition, if the station proceeds with plans to replace the steam dryer on Unit 2 in the next refueling outage, we also plan to perform inspection procedure 71004, "Extended Power Uprate," to inspect activities related to the steam dryer replacement.

In our Mid-Cycle Performance Review Letter, dated August 30, 2004, we advised you of a substantive cross-cutting issue in the area of human performance. While we noted that the number and significance of human performance cross-cutting issues have decreased slightly, human performance issues sharing the common causal factor of personnel errors and involving various departments at the site have continued through the third and fourth quarters of 2004. Examples included: engineering personnel failed to perform an adequate operability evaluation for the installation of incorrect flanges on the main steam relief valve discharge lines on both units; electrical maintenance personnel failed to implement protected pathway barrier requirements which resulted in the tripping of a safety related bus; operations personnel failed to understand surveillance testing prerequisite requirements, and, as a result, unexpected rod motion occurred during the testing; electrical maintenance personnel removed a drywell cooler breaker that was tagged for testing with the tags still on the breaker; and operations personnel mispositioned a valve in the flow path for draining the Unit 2 torus to the hotwell. We understand that you have developed a Human Performance Improvement Plan, but that progress is not complete on some of the actions. Therefore, in accordance with the criteria described in NRC Inspection Manual Chapter 0305, "Operating Reactor Assessment Program," Section 0305-06.06.i. "Substantive Cross-Cutting Issues," we are continuing the substantive cross-cutting human performance issue. Further reduction in the number, significance, and common causality is needed to resolve this issue. We will continue to monitor your performance in the human performance cross-cutting area through the baseline inspection program and evaluate the results in our semi-annual trend review at the mid-cycle assessment point. We request that you provide a written response to this substantive cross-cutting issue, including your plans to resolve the issue, within 60 days of this letter, and that you discuss your views at the annual public meeting.

The enclosed inspection plan details the inspections, less those related to physical protection, scheduled through September 30, 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 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 9 months of the inspection plan are tentative and may be revised at the mid-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).

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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 Mark 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. 50-237; 50-249 License Nos. DPR-19; DPR-25

Enclosure: Dresden Inspection/Activity Plan

cc w/encl: Site Vice President - Dresden Nuclear Power Station

Dresden Nuclear Power Station Plant Manager Regulatory Assurance Manager - Dresden

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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Manager Licensing - Dresden and Quad Cities Senior Counsel, Nuclear, Mid-West Regional

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Document Control Desk - Licensing

Assistant Attorney General

Illinois Department of Nuclear Safety

State Liaison Officer

Chairman, Illinois Commerce Commission

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Operating Group

Document Control Desk - Licensing

Assistant Attorney General

Illinois Department of Nuclear Safety

State Liaison Officer

Chairman, Illinois Commerce Commission

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Dresden

Inspection / Activity Plan 03/01/2005 - 09/30/2006

Unit No. of Staff **Planned Dates** Inspection on Site Start End **Type** Number Inspection Activity Title 7111404 - REVIEW EMERGENCY PLAN CHANGES 1 2,3 IP 7111404 Emergency Action Level and Emergency Plan Changes 01/19/2005 03/11/2005 Baseline Inspections FPI - TRIENNIAL FIRE PROTECTION 3 Fire Protection 03/14/2005 04/01/2005 Baseline Inspections 2,3 IP 7111105T 71114 - EP EXERCISE & EP PI INSPECTION 2 IP 7111401 2,3 **Exercise Evaluation** 03/07/2005 03/11/2005 **Baseline Inspections** 2,3 IP 71151 Performance Indicator Verification 03/07/2005 03/11/2005 Baseline Inspections MAINT - BIENNIAL MAINTENANCE RULE INSPECTION 1 2,3 IP 7111112B Maintenance Effectiveness 04/15/2005 04/11/2005 Baseline Inspections - RADIOLOGICAL EFFLUENT CONTROL 71122.01 1 IP 7112201 2,3 Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems 04/25/2005 04/29/2005 **Baseline Inspections** 2,3 IP 71151 Performance Indicator Verification 04/25/2005 04/29/2005 **Baseline Inspections ISFSI** - OPERATION OF AN ISFSI 2 IP 60855 2,3 Operation Of An ISFSI 05/01/2005 06/30/2005 Other Routine SSDPC - SAFETY SYSTEM DESIGN & PERFORMANCE 5 2,3 IP 7111121 Safety System Design and Performance Capability 07/25/2005 08/12/2005 Baseline Inspections 71121.01 - RADIOLOGICAL ACCESS CONTROL 1 2,3 IP 7112101 Access Control to Radiologically Significant Areas 08/01/2005 08/05/2005 **Baseline Inspections** 2,3 IP 71151 Performance Indicator Verification 08/01/2005 08/05/2005 Baseline Inspections ISI - UNIT 2 ISI INSPECTION 1 IP 7111108G 2 Inservice Inspection Activities - BWR 10/31/2005 11/11/2005 Baseline Inspections 71121.02 - OUTAGE ALARA 1 2.3 IP 7112102 **ALARA Planning and Controls** 11/14/2005 11/18/2005 **Baseline Inspections** 2.3 IP 71151 Performance Indicator Verification 11/14/2005 11/18/2005 **Baseline Inspections** 71152B - PROBLEM IDENTIFICATION AND RESOLUTION 2 IP 71152B 2.3 Identification and Resolution of Problems 01/01/2006 01/31/2006 Baseline Inspections 71114 - BASELINE EP INSPECTION 1 IP 7111402 2.3 Alert and Notification System Testing 01/09/2006 01/13/2006 **Baseline Inspections** 2.3 IP 7111403 **Emergency Response Organization Augmentation Testing** 01/09/2006 01/13/2006 **Baseline Inspections** 2.3 IP 7111405 Correction of Emergency Preparedness Weaknesses and Deficiencies 01/09/2006 01/13/2006 **Baseline Inspections** 2.3 IP 71151 Performance Indicator Verification 01/13/2006 **Baseline Inspections** 01/09/2006 FY 2005 - DRESDEN INIT PREP 01/2006 3 W90124 OL - INITIAL EXAM - DRESDEN - AUG/SEP 2005 2 01/09/2006 01/13/2006 Not Applicable

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02/06/2006

02/10/2006 Not Applicable

This report does not include INPO and OUTAGE activities.

FY 2005

W90124

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This report shows only on-site and announced inspection procedures.

- DRESDEN INIT EXAM 02/2006

OL - INITIAL EXAM - DRESDEN - AUG/SEP 2005

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Report 22

Dresden

Inspection / Activity Plan 03/01/2005 - 09/30/2006

Unit No. of Staff **Planned Dates** Inspection Number on Site Start End Type Inspection Activity Title 7112103 - RADIOLOGICAL INSTRUMENTATION 1 2,3 IP 7112103 Radiation Monitoring Instrumentation and Protective Equipment 02/27/2006 03/03/2006 Baseline Inspections 2,3 IP 71151 Performance Indicator Verification 02/27/2006 03/03/2006 Baseline Inspections HS - HEAT SINK INSPECTION 1 IP 7111107B Heat Sink Performance 03/20/2006 03/24/2006 Baseline Inspections 2 **ISFSI** - OPERATION OF AN ISFSI 1 2,3 IP 60855.1 Operation of an Independent Spent Fuel Storage Installation at Operating Plants 05/01/2006 06/30/2006 Other Routine - REMP AND RAD MATERIAL CONTROL 7112203 1 IP 7112203 05/22/2006 2,3 Radiological Environmental Monitoring Program 05/26/2006 Baseline Inspections 2,3 IP 71151 Performance Indicator Verification 05/22/2006 05/26/2006 Baseline Inspections 7112101 - RADIOLOGICAL ACCESS CONTROL 2,3 IP 7112101 Access Control to Radiologically Significant Areas 08/28/2006 09/01/2006 Baseline Inspections 2,3 IP 71151 Performance Indicator Verification 08/28/2006 09/01/2006 Baseline Inspections