March 25, 2004

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

SUBJECT: DRESDEN NUCLEAR POWER STATION, QUAD CITIES NUCLEAR POWER STATION, NRC LICENSE RENEWAL INSPECTION REPORT 05000237/2004005(DRS); 05000249/2004005(DRS); 05000254/2004003(DRS); 05000265/2004003(DRS)

Dear Mr. Crane:

On March 17, 2004, the NRC completed an inspection regarding your application for license renewal for your Dresden and Quad Cities facilities. The enclosed report documents the inspection findings, which were discussed on March 17, 2004, with members of your staff in an exit meeting at the Exelon Midwest Regional Operating Group offices in Warrenville, Illinois.

The purpose of this inspection was an examination of activities that support your application for a renewed license for the Dresden and Quad Cities facilities. The inspection consisted of a selected examination of procedures and representative records, and interviews with personnel regarding the implementation of your license renewal activities. During this inspection, we reviewed open issues from the scoping and screening and aging management program inspections. Based on the results of this inspection, four open issues have been closed. Two issues remain open, including one associated with the accuracy of the action tracking items for license renewal. These issues will be reviewed during a future follow-up inspection.

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 <u>http://www.nrc.gov/reading-rm/adams.html</u> (the Public Electronic Reading Room).

Sincerely,

/RA by Roy Caniano Acting for/

Cynthia D. Pederson, Director Division of Reactor Safety

Docket Nos. 50-237; 50-249; 50-254; 50-265 License Nos. DPR-19; DPR-25; DPR-29; DPR-30

Enclosure Inspection Report 05000237/2004005(DRS); 05000249/2004005(DRS); 05000254/2004003(DRS); 05000265/2004003(DRS)

See Attached Distribution

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<u>See Attached Distribution</u> *See Previous Concurrence DOCUMENT NAME: ML040860023.wpd To receive a copy of this document, indicate in the box: "C" = Copy with

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C. Crane

Site Vice President - Dresden Nuclear Power Station cc w/encl: Site Vice President - Quad Cities Nuclear Power Station **Dresden Nuclear Power Station Plant Manager** Quad Cities Nuclear Power Station Plant Manager Regulatory Assurance Manager - Dresden 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** Operating Group State Liaison Officer Chairman. Illinois Commerce Commission Manager Licensing - Dresden and Quad Cities Senior Counsel, Nuclear, Mid-West Regional **Operating Group Document Control Desk - Licensing** Vice President - Law and Regulatory Affairs Mid American Energy Company Assistant Attorney General Illinois Department of Nuclear Safety State Liaison Officer, State of Illinois State Liaison Officer, State of Iowa Chairman, Illinois Commerce Commission D. Tubbs, Manager of Nuclear MidAmerican Energy Company

C. Crane

Site Vice President - Dresden Nuclear Power Station cc w/encl: Site Vice President - Quad Cities Nuclear Power Station **Dresden Nuclear Power Station Plant Manager** Quad Cities Nuclear Power Station Plant Manager Regulatory Assurance Manager - Dresden 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** Operating Group State Liaison Officer Chairman. Illinois Commerce Commission Manager Licensing - Dresden and Quad Cities Senior Counsel, Nuclear, Mid-West Regional **Operating Group Document Control Desk - Licensing** Vice President - Law and Regulatory Affairs Mid American Energy Company Assistant Attorney General Illinois Department of Nuclear Safety State Liaison Officer, State of Illinois State Liaison Officer, State of Iowa Chairman, Illinois Commerce Commission D. Tubbs, Manager of Nuclear MidAmerican Energy Company **ADAMS Distribution:**

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U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos:	50-237; 50-249 50-254; 50-265
License Nos:	DPR-19; DPR-25 DPR-29; DPR-30
Report Nos:	05000237/2004005(DRS); 05000249/2004005(DRS); 05000254/2004003(DRS); 05000265/2004003(DRS)
Licensee:	Exelon Generation Company
Facilities:	Dresden Nuclear Power Station, Units 2 and 3 Quad Cities Nuclear Power Station, Units 1 and 2
Location:	4300 Winfield Road Warrenville, IL 60555
Dates:	March 15 through 17, 2004
Inspector:	L. C. Kozak, Senior Reactor Inspector
Approved by:	Anton Vegel, Chief Systems Engineering Branch Division of Reactor Safety

SUMMARY OF FINDINGS

IR 05000237/2004005(DRS); 05000249/2004005(DRS); 05000254/2004003(DRS); 05000265/2004003(DRS); 03/15/2004 - 03/17/2004; Dresden Nuclear Power Station, Units 2 and 3; Quad Cities Nuclear Power Station, Units 1 and 2; License Renewal Inspection.

This inspection of License Renewal (LR) activities was performed by a regional office engineering inspector. The inspection program followed NRC Manual Chapter 2516 and NRC Inspection Procedure 71002. This inspection did not identify any "findings" as defined in NRC Manual Chapter 0612.

The purpose of this inspection was to review open issues from previous license renewal inspections. Based on the results of the inspection, the following conclusions were drawn:

- The applicant revised the compressed air monitoring, aboveground storage tank, and structures monitoring aging management programs to address the open issues from the aging management program inspection. As a result, these items are considered closed.
- The switchyard buses were considered to be within the scope of license renewal and received an aging management review. The open item associated with scoping of the switchyard buses is closed.
- Two items from previous license renewal inspections remain open. These issues will be reviewed during a future NRC inspection.

REPORT DETAILS

I. Inspection Scope

This inspection was conducted by an NRC Region III inspector to review open items identified during the previous license renewal inspections of scoping and screening and aging management programs. The inspector reviewed the applicant's changes to several aging management programs that were performed as a result of open issues identified during previous inspections. The inspector discussed the open issues and the program revisions with the cognizant engineering and license renewal staff.

II. <u>Findings</u>

A. Review of Open Items

1. Compressed Air Monitoring Program (B.1.16)

During the aging management program inspection, the inspectors identified two open issues associated with the compressed air monitoring program. The first issue was the omission of some air-operated containment isolation valves at Dresden from the compressed air monitoring program. During the current inspection, the inspector reviewed existing procedure DOS 1600-28, "Air-Operated Valve Fail Safe and Accumulator Integrity Test," which tested these containment isolation valves. This procedure had been designated as a commitment for the license renewal compressed air monitoring program. Appropriate license renewal documents, including the 10-element review and the action tracking items had also been updated to included the testing of these valves into the aging management program.

The second open issue involved the location of air quality monitoring. The applicant had previously relied on air quality monitoring only on portions of the system that were outside the scope of license renewal. The inspector reviewed draft procedure QCTS 4700-01, "Instrument Air Analysis," and draft procedure DTS 4700-01, "Sampling Unit 2(3) Instrument Air," and found that additional sampling points had been added to the procedure and denoted as commitments for license renewal. At each plant, additional sample locations for the drywell pneumatic system and for instrument air in close proximity to safety-related components were designated. The inspector verified that there were action tracking items for these planned procedure changes.

During the review of these open items, the inspector noted that the aging management program did not include pressure decay testing of the main steam isolation valves (MSIVs) at Dresden or testing of air-operated containment isolation valves at Quad Cities. The applicant subsequently identified the applicable existing procedures and initiated a license renewal change request to change the aging management program to include DOS 7100-08, "Leak Rate Test of the Main Steam Isolation Valve Reserve Air Accumulator Check Valves,"

and QCOS 5750-10, "Reactor Bldg Ventilation Isolation Dampers Pneumatic Accumulator System Pressure Decay and Fail Safe Test," as commitments.

Based on the review of completed and proposed changes to the aging management program and the review of the action tracking items for those changes, the inspector concluded that the open issues associated with the compressed air monitoring program were adequately resolved.

2. Aboveground Carbon Steel Tanks (B.1.20)

During the previous inspection, the inspectors reviewed the Aboveground Carbon Steel Tanks aging management program and noted that one of the implementing activities of the program was quarterly system engineer walkdowns of the nitrogen storage tanks. An open issue was identified because the guidance for the system engineer walkdown was a generic checklist that did not specifically address inspection of the carbon steel tanks. During the current inspection, the inspector reviewed a newly developed procedure for Quad Cities QCTS 8700-01, "Outdoor Nitrogen System and Storage Tank Inspection," and a similar draft procedure for Dresden. These procedures specifically direct the system engineer to inspect the tanks for evidence of leakage or surface corrosion and to document and trend the results of the inspections. The inspector confirmed that the implementation of these new walkdown procedures was covered by action tracking items and that the procedures were designated as commitments for the Aboveground Carbon Steel Tanks aging management program. Based on these changes to the program, the inspectors concluded that this open issue was adequately resolved.

3. Structures Monitoring Program (B.1.30)

During initial inspection of the structures monitoring program, the inspectors noted that Section 4.7.1 of corporate procedure SA-AA-117, "Excavation, Trenching, and Shoring," Revision 2, had been previously revised to add, "If underground piping is exposed during excavation, notify engineering to inspect piping for evidence of coating degradation or corrosion." This excavation procedure was part of both the Structures Monitoring and Buried Pipes and Tanks aging management programs. The inspectors found that the procedure limited the inspection to only piping and did not include other structures that may become unearthed, such as concrete or structural steel. During the current inspection, the inspector reviewed a draft revision of the excavation procedure that included changes such that any unearthed pipe, steel or concrete structure would be inspected for signs of degradation. The procedure changes were tracked by the applicants' action tracking system. Based on the draft procedure revision and the tracking system, the inspector determined that this open issue had been adequately addressed.

4. Switchyard Buses

During the scoping and screening inspection, the inspectors determined that the scoping and screening of the switchyard buses was an open issue because the

applicant was reviewing the issue in response to a request for additional information (RAI) from the Office of Nuclear Reactor Regulation (NRR). The inspectors reviewed RAI 3.6-7 and the applicant's response dated October 3, 2003, and determined that the switchyard buses were included in the scope of license renewal and received an aging management review. The aging management review determined that for the ambient environmental conditions, there were no applicable aging effects that could cause a loss of intended function. Based on the RAI response and NRR's review documented in the Safety Evaluation Report (SER) issued in February 2004, this issue is closed.

5. Remaining Open Items

Two issues from previous license renewal inspections remain open. The first open issue was documented in the scoping and screening inspection report and involved the applicant's methodology for establishing system boundaries where nonsafety-related piping was attached to safety-related piping. This issue is currently under review by NRR and is an open item discussed in the SER with open items issued in February 2004.

The second remaining open item, from the aging management program inspection, involved the accuracy of the applicants' action tracking items that are used to track the implementing activities for the aging management programs. The applicant intended to review and update all action tracking items but at the time of this inspection had only completed five of the aging management programs. The inspector will review this open issue in a future inspection after the applicant has reviewed and updated action tracking items for additional aging management programs.

III. Exit Meeting Summary

The results of this inspection were discussed on March 17, 2004, with members of the Exelon Generation staff in an exit meeting at the Exelon Midwest Regional Operating Group offices in Warrenville, IL. The applicant acknowledged the findings presented.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

PARTIAL LIST OF PERSONS CONTACTED

Applicant A. Fulvio M. Hayse R. Hunnicutt R. John M. Kluge J. Nosko J. Patel F. Polaski R. Robey

R. Stachniak

<u>NRC</u>

A. Vegel

LIST OF DOCUMENTS REVIEWED

The following is a list of documents reviewed during the inspection. Inclusion on this list does not imply that the NRC inspectors reviewed the documents in their entirety but rather that selected sections of portions of the documents were evaluated as part of the overall inspection effort. Inclusion of a document on this list does not imply NRC acceptance of the document or any part of it, unless this is stated in the body of the inspection report.

License Renewal Aging Management Reviews

Exelon Aging Management Program 10 Element Review, Compressed Air Monitoring (B.1.16); Revision 4

Exelon Aging Management Program 10 Element Review, Aboveground Carbon Steel Tanks (B.1.20); Revision 4

Exelon Aging Management Program 10 Element Review, Buried Piping and Tanks (B.1.25); Revision 4

Exelon Aging Management Program 10 Element Review, Structures Monitoring (B.1.30); Revision 4

License Renewal Change Requests

LRCR 2003-104; Add Changes to Aging Management Program B.1.31 to Include Quad Cities Weir in the Discharge Flume

LRCR 2003-280; Revise Procedure SA-AA-117, Revision 2, Sections 4.7, 4.7.1, 4.7.1.1, 4.7.1.2, to Add Concrete and Steel Components along with the Piping Inspection

LRCR 2003-287; Revise ER-MW-450, Attachment 2 for Inaccessible or Submerged

LRCR 2003-297; Revise ER-MW-450, Attachment 6, "Structures Matrix" to Clarify BWR Terminology of Structures/Components

LRCR 2004-015; Revise Procedure ER-MW-450, Structures Monitoring, Attachment 1, Section C.8 to read as follows:

"Buried piping determined to be within the scope of the maintenance rule should be examined. For Quad Cities and Dresden only, all excavated buried piping should be examined."

LRCR 2004-016; Develop And/or Annotate a Dresden Procedure to Pressure Decay Test the Inboard and Outboard MSIV Instrument Air Accumulators

Develop And/Or Annotate a Quad Cities Procedure to Pressure Decay Test the Primary Containment Isolation Valves Instrument Air Accumulator

Procedures **Procedures**

ER-MW-450; Structures Monitoring; Revision 3 draft

SA-AA-117; Excavation, Trenching, and Shoring; Revision 3 draft

DOS 1600-28; Air Operated Valve Fail Safe and Accumulator Integrity Test; Revision 9

DOS 7100-02; Leakage Test of Target Rock Pneumatic System; Revision 3

DOS 7100-08; Leak Rate Test of the Main Steam Isolation Valve Reserve Air Accumulator Check Valves; Revision 3 draft

DTS 4700-01; Sampling Unit 2(3) Instrument Air; Revision 6 draft

DTS 4700-02; Compressed Air Monitoring Program Walkdown; Revision 0 draft

QCTS 8700-01; Outdoor Nitrogen System and Storage Tank Inspection; Revision 0

QCTS 4700-01; Instrument Air Analysis; Revision 2

QCOS 4700-02; Inboard MSIV and Target Rock Valve Pneumatic System Leak Test; Revision 2

QCTS 0820-14; Outboard MSIV Pneumatic System Leak Test; Revision 5

QCTS 4700-01; Instrument Air Analysis; Revision 2 draft

QCTS 4700-02; Compressed Air Monitoring Program Walkdown; Revision 0 draft

QCOS 5750-10; Reactor Building Ventilation Isolation Dampers Pneumatic Accumulator System Pressure Decay and Fail Safe Test; Revision 10 draft

Miscellaneous Documents

NRC Request for Additional Information (RAI) 3.6-7 and Applicant Response

NRC Safety Evaluation Report with Open Items; February 2004