

June 2, 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: QUAD CITIES NUCLEAR POWER STATION - INFORMATION REQUEST FOR AN NRC BIENNIAL BASELINE COMPONENT DESIGN BASES INSPECTION (CDBI) 05000254/2006003(DRS); 05000265/2006003(DRS)

Dear Mr. Crane:

On August 14, 2006, the NRC will begin a biennial baseline Component Design Bases Inspection (CDBI) at the **Quad Cities Nuclear Power Station**. A team of six inspectors will perform this 3-week inspection. This inspection will be performed in accordance with revised NRC Baseline Inspection Procedure (IP) 71111.21 and replaces the biennial Safety System Design and Performance Capability inspection.

The CDBI inspection focuses on components which have high risk and low design margins. The components to be reviewed during this baseline inspection will be identified during an in-office preparation week prior to the first week of on-site inspection. In addition, a number of risk significant operator actions and operating experience issues, associated with the component samples, will also be selected for review.

The inspection will include 3 weeks of on-site inspection, including the information gathering during the first on-site week. The inspection team will consist of six NRC inspectors, of which five will focus on engineering and one on operations. The current inspection schedule is as follows:

- On-site weeks: August 14, 2006, August 28, 2006, and September 11, 2006

The team will be preparing for the inspection mainly during the week of August 7, 2006, as discussed in the attached enclosure. A Region III Senior Reactor Analyst will accompany the inspection team during the week of August 14, 2006, to review probabilistic risk assessment data and assist in identifying risk significant components, which will be reviewed during the inspection.

Experience with previous baseline design inspections of similar depth and length has shown that these type of inspections are extremely resource intensive, both for the NRC inspectors and the licensee staff. In order to minimize the inspection impact on the site and to ensure a productive inspection for both parties, we have enclosed a request for information needed for the inspection.

It is important that all of these documents are up to date and complete in order to minimize the number of additional documents requested during the preparation and/or the on-site portions of the inspection. Insofar as possible, this information should be provided electronically to the lead inspector. The information request has been divided into three groups:

- The first group lists information necessary for our initial inspection scoping activities. This information should be available to the lead inspector no later than July 20, 2006. By July 27, 2006, the lead inspector will communicate the initial selected set of 30 high risk components.
- The second group of documents requested are those items needed to support our in-office preparation activities. This set of documents, including the calculations associated with the initial selected components, should be available at the Regional Office no later than August 3, 2006. During the in-office preparation activities, the team may identify additional information needed to support the inspection.
- The last group includes the additional information above as well as plant specific reference material. This information should be available to the team on August 14, 2006. It is also requested that corrective action documents and/or questions developed during the inspection be provided to the lead inspector as the documents are generated.

The lead inspector for this inspection is Mr. Zelig Falevits. We understand that our regulatory assurance contact for this inspection is Mr. Wally Beck of your organization. In order to facilitate the inspection, we request that a contact individual be assigned to each inspector to ensure information requests, questions, and concerns are addressed in a timely manner. If there are any questions about the inspection or the material requested in the Enclosure, please contact the lead inspector at (630) 829-9717 or via e-mail at zxf@nrc.gov.

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/

Ann Marie Stone, Chief
Engineering Branch 2
Division of Reactor Safety

Docket No. 50-254; 50-265
License No. DPR-29; DPR-30

C. Crane

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Enclosure: Component Design Bases Inspection (CDBI) Document Request

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
Director Licensing - Mid-West Regional
Operating Group
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 Emergency Management Agency
State Liaison Officer, State of Illinois
State Liaison Officer, State of Iowa
Chairman, Illinois Commerce Commission
D. Tubbs, Manager of Nuclear
MidAmerican Energy Company

It is important that all of these documents are up to date and complete in order to minimize the number of additional documents requested during the preparation and/or the on-site portions of the inspection. The information request has been divided as follows:

The first group lists information necessary for a productive inspection preparation. This information should be available to the Regional Office by no later than July 20, 2006, or sooner. Insofar as possible, this information should be provided electronically to the lead inspector. The second group of documents requested are those items necessary for the teams in-office (August 7, 2006) preparation activities. Since the inspection will concentrate on high risk/low margin components, calculations associated with the first group list of approximately 30 high risk components should be available by August 3, 2006, to assist in our selection of components based on available design margin. During the in-office preparation week, the team may identify additional information needed. This information should be available by August 14, 2006 (on-site week). The last group lists information necessary to aid the inspection team in tracking issues identified as a result of the inspection. It is requested that this information be provided to the lead inspector as the information is generated during the inspection.

The lead inspector for this inspection is Mr. Zelig Falevits. We understand that our regulatory affairs contact for this inspection is Mr. Tony Fuhs of your organization. In order to facilitate the inspection, we request that a contact individual be assigned to each inspector to ensure information requests, questions, and concerns are addressed in a timely manner. If there are any questions about the inspection or the material requested in the Enclosure, please contact the lead inspector at (630) 829-9717 or via e-mail at zxf@nrc.gov.

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,

Ann Marie Stone, Chief
 Engineering Branch 2
 Division of Reactor Safety

Docket No. 50-254; 50-265
 License No. DPR-29; DPR-30

Enclosure: Component Design Bases Inspection (CDBI) Document Request

See Attached Distribution

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**INFORMATION REQUEST FOR QUAD CITIES NUCLEAR POWER STATION
COMPONENT DESIGN BASES INSPECTION (CDBI)**

Inspection Report: 05000254/265/2006003(DRS)

**Information Gathering/
Inspection Dates:** August 14, 2006

Inspection Dates: August 14, 2006, August 28, 2006, and September 11, 2006

Inspection Procedure: IP 71111.21, "Component Design Bases Inspection"

Lead Inspector: Zelig Falevits, Lead Inspector
(630) 829-9717
(zxf@nrc.gov)

***I. Information Requested Prior to the On-site Information Gathering/Inspection Week
(by July 20, 2006, or sooner)***

The following information is requested by July 20, 2006, or sooner, to facilitate inspection preparation. If you have any questions regarding this information, please call the team leader as soon as possible. (Please provide the information electronically in "pdf" files, Excel, or other searchable formats, preferably on CDROM. The CDROM should contain descriptive names, and be indexed and hyperlinked to facilitate ease of use. Information in "lists" should contain enough information to be easily understood by someone who has a knowledge of boiling water reactor technology).

1. Risk ranking of top 100 components from your site specific probabilistic safety analysis (PSA) sorted by Risk Achievement Worth (RAW). Include values for Birnbaum Importance, Risk Reduction Worth (RRW), and Fussell-Veseley (FV) (as applicable).
2. Provide a list of the top 500 cut-sets from your PSA.
3. Risk ranking of operator actions from your site specific PSA sorted by RAW. Provide copies of your human reliability worksheets for these items.
4. If you have an External Events or Fire PSA Model, provide the information requested in Items 1 and 2 for external events and fire.
5. Any pre-existing evaluation or list of components and associated calculations with low design margins, (i.e., pumps closest to the design limit for flow or pressure, diesel generator close to design required output, heat exchangers close to rated design heat removal etc.).
6. List of high risk Maintenance Rule systems/components based on engineering or expert panel judgement.
7. A list of operating experience evaluations for the last 3 years.

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8. A list of modifications sorted by component identified in item 1.
9. List of and Information on any common cause failure of components experienced in the last 5 years at your facility.
10. A list of the design calculations which provide the design margin information for components included in item 1.
11. List of Root Cause Evaluations associated with component failures or design issues initiated/completed in the last 5 years.
12. Current management and engineering organizational chart.

II. Information Requested (for the approx. 30 selected components) to be Available by August 3, 2006 (will be reviewed by the team in the Regional office during the week of August 7, 2006)

1. List of condition reports (corrective action documents) associated with each of the selected components for the last 5 years.
2. The corrective maintenance history associated with each of the selected components for the last 2 years.
3. Copies of calculations associated with each of the selected components, excluding data files. Please review the calculations and also provide copies of referenced material (such as drawings, engineering requests, vendor letters).
4. Copies of operability evaluations associated with each of the selected components and plans for restoring operability, if applicable.
5. Copies of selected operator work-around evaluations associated with each of the selected components and plans for resolution, if applicable.
6. Copies of any open temporary modifications associated with each of the selected components, if applicable.
7. Trend data on the selected electrical/mechanical components' performance for last three years (For example, pumps' performance including in-service testing, other vibration monitoring, oil sample results, etc., as applicable).
8. A copy of any internal/external self-assessments and associated corrective action documents generated in preparation for the inspection.
9. A copy of engineering/operations related audits completed in the last 2 years.

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10. List of MOVs in the program, design margin and risk ranking.
11. List of AOVs in the AOV program, design margin and risk ranking.
12. SSCs in the maintenance rule (a)(1) category.
13. Site Top Ten issues list.
14. Provide list of PRA assumptions regarding operator actions and the associated procedures.

III. Additional Information to be Provided on August 14, 2006 On-site (for final 15 - 18 selected components)

Request for the additional information needed will be provided during the week of August 7, 2006. The lead inspector will provide a list of added information.

IV. Information Requested to be provided throughout the inspection

- 1 Copies of any corrective action documents generated as a result of the team's questions or queries during this inspection.
- 2 Copies of the list of questions submitted by the team members and the status/resolution of the information requested (provide daily during the inspection to each team member).
3. Reference materials (make available if needed during all on-site weeks):
 - General set of plant drawings;
 - IPE/PRA report;
 - Procurement documents for components selected (verify retrievable);
 - Plant procedures (normal, abnormal, emergency, surveillance, etc.);
 - Technical Specifications;
 - Updated Final Safety Analysis Report; and
 - Vendor manuals.

If you have questions regarding the information requested, please contact the lead inspector.