UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
2443 WARRENVILLE ROAD, SUITE 210
LISLE, IL 60532-4352

March 15, 2010

Mr. Charles G. Pardee
Senior Vice President, Exelon Generation Company, LLC
President and Chief Nuclear Officer (CNO), Exelon Nuclear
4300 Winfield Road
Warrenville IL 60555

SUBJECT: BYRON STATION UNIT 2 - NOTIFICATION OF NRC INSPECTION AND REQUEST FOR INFORMATION

Dear Mr. Pardee:

On April 19, 2010, the NRC will begin the Baseline Inservice Inspection (NRC Inspection Procedure (IP) 71111.08) at the Byron Nuclear Power Plant, Unit 2. This inspection is scheduled to be performed April 19 through 30, 2010.

Experience has shown that this inspection is resource intensive both for the NRC inspector and your staff. In order to minimize the impact to your resources and to ensure a productive inspection for both sides, we have enclosed a request for documents needed for this inspection. These documents have been divided into two groups. The first group identifies information necessary to ensure that the inspector is adequately prepared. The second group identifies the information the inspector will need upon arrival at the site. 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 portions of the inspection.

We have discussed the schedule for these inspection activities with your staff and understand that our regulatory contact for this inspection will be Ms. T. Hulbert, of your organization. If there are any questions about this inspection or the material requested, please contact the inspector Mr. T. Bilik at (630) 829-9744.

This letter does not contain new or amended information collection requirements subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). Existing information collection requirements were approved by the Office of Management and Budget, control number 3150-0011.

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Sincerely,

/RA/

David E. Hills, Chief
Engineering Branch 1
Division of Reactor Safety

Docket No. 50-455
License No. NFP-66

Enclosure: INSERVICE INSPECTION DOCUMENT REQUEST

cc w/encl: Distribution via ListServe

INSERVICE INSPECTION DOCUMENT REQUEST

Inspection Dates: April 19 -30, 2010

Inspection Procedures: IP 71111.08, "Inservice Inspection"

Inspector: Tom Bilik (630) 829-9744
tom.bilik@nrc.gov

A. Information Requested for the In-Office Preparation Week

The following information (electronic copy CD ROM if possible) is requested by April 12, 2010, to facilitate the selection of specific items that will be reviewed during the on-site inspection week. The inspector will select specific items from the information requested below and request a list of additional documents needed on-site from your staff. We request that the specific items selected from the lists be available and ready for review on the first day of inspection. If you have any questions regarding this information, please call the inspector as soon as possible.

1. A detailed schedule and description of:

   a. non-destructive examinations (NDE) planned for Class 1 and 2 Systems and containment, performed as part of your ASME Code Inservice Inspection (ISI) Program (include edition and addenda of Code committed to), and NDE examinations planned for other systems performed as part of a Risk Informed (RI)-ISI Program, or other augmented inspection programs commitments as part of an industry initiative. Specifically, identify any dissimilar metal weld examinations performed to meet the MRP-139 Program that are scheduled to occur during the outage. For each weld examination, include the weld identification number, description of weld (component name), category, class, type of exam and procedure number, and date of exam;

   b. reactor vessel upper head examinations required by 10 CFR 50.55a(g)(6)(ii)(D) and Code Case N-729-1;

   c. steam generator (SG) tube inspection and repair activities for the upcoming outage; and

   d. welding on Code Class 1, 2, or 3 components.

   Also, provide the inspector with the on-site training necessary to observe these activities; (e.g., confined space, scaffolding, or fall protection).

2. A copy of the NDE procedures and welding procedures used to perform the activities identified in A.1 (including NDE calibration and flaw characterization/sizing procedures and Welding Procedure Qualification Records).

INSERVICE INSPECTION DOCUMENT REQUEST

For ultrasonic examination procedures qualified in accordance with Appendix VIII, of Section XI of the ASME Code, provide documentation supporting the procedure qualification (e.g., the EPRI performance demonstration qualification summary sheets).

3. A copy of ASME Section XI, Code Relief Requests applicable to the examinations identified in A(1).

4. A copy of the 10-year ISI program showing those required exams scheduled to be performed during this outage, and those that have been completed.

5. A list identifying NDE reports (ultrasonic, radiography, magnetic particle, or dye penetrant), which have identified relevant indications on Code Class 1 and 2 Systems since the beginning of the last refueling outage.

6. List with short description of the welds in Code Class 1 and 2 Systems, which have been fabricated due to component repair/replacement activities since the beginning of the last refueling outage and identify the system, weld number, and reference applicable documentation, (e.g., NIS-2 forms with definitions of system and component acronyms).

7. If reactor vessel weld examinations required by the ASME Code are scheduled to occur during the inspection period, provide a detailed description of the welds to be examined, and the extent of the planned examination.

8. List with description of ISI and steam generator (SG) related issues (e.g., piping/SG tube degradation, or damage (cracks, wall thinning, wear, corrosion or errors identified in piping/SG tube examinations) entered into your corrective action system since the beginning of the last refueling outage (both Units). Also, include a list of corrective action records associated with foreign material introduced/identified in the primary or secondary piping systems since the beginning of the last refueling outage (both Units).

9. Copy of any 10 CFR Part 21 reports applicable to your structures systems or components within the scope of Section XI of the ASME Code, which have been identified since the beginning of the last refueling outage.

10. Copy of SG history documentation given to vendors performing eddy current (ET) testing of the SGs during the upcoming outage.

11. Copy of procedure containing screening criteria used for selecting tubes for in-situ-pressure testing and the procedure to be used for in-situ-pressure testing.

12. Copy of previous outage SG tube operational assessment completed following ET of the SGs.

13. Copy of the document defining the planned ET scope for the SGs and the scope expansion criteria which will be used. Also, identify and describe any deviations in this scope or expansion criteria from the EPRI Guidelines.

14. Copy of the document describing the ET probe types, Examination Technique Specification Sheets, and ET acquisition equipment to be used, including the areas of the SG (e.g., top of tube sheet, U-bends) that each probe will be used.

15. Identify and quantify any SG tube leakage experienced during the previous operating cycle. Also provide documentation identifying which SG was leaking and corrective actions completed or planned for this condition.

16. Identify changes made to the dissimilar metal weld examination program (MRP) for Unit 2 welds subject to the requirements of the Materials Reliability Program: Primary System Piping Butt Weld Inspection and Evaluation Guidelines (MRP-139), which have been implemented since the completion of the last NRC inspection. For example, identify a program change if welds have been moved in/out of scope, schedules of planned weld examinations have been changed, or planned methods for mitigation of susceptible welds have changed since the NRC documented its review of this program in its previous inspection report.

17. Identify any current, or planned, deviations from the Materials Reliability Program: Primary System Piping Butt Weld Inspection, and Evaluation Guidelines (MRP-139), and provide a copy of the basis document supporting these deviations.

18. Identify and provide scheduled dates for any dissimilar metal weld mitigation activities (overlay repair, inlay repair, mechanical stress improvement, etc.), which will occur during the upcoming Unit 2 outage.

B. Information To Be Provided On-Site To The Inspector Following The Entrance Meeting

1. For welds selected by the inspector from A.2 and A.6 above, provide copies of the following documents:

    a. Document of the weld number and location (e.g., system, train, branch);

    b. Document with a detail of the weld construction;

    c. Applicable Code Edition and Addenda for weldment;

    d. Applicable Code Edition and Addenda for welding procedures;

    e. Applicable weld procedures (WPS) used to fabricate the welds;

f. Copies of procedure qualification records (PQRs) supporting the WPS;

g. Copies of welders' performance qualification records (WPQ);

h. Copies of mechanical test reports identified in the PQRs above;

i. Copies of the nonconformance reports for the selected welds;

j. Radiographs of the selected welds and access to equipment to allow viewing radiographs; and

k. Copies of the preservice examination records for the selected welds.

2. For the ISI related corrective action issues selected by the inspector from A.8 above, provide a copy of the corrective actions, and supporting documentation.

3. For the nondestructive examination reports with relevant indications on Code Class 1 and 2 Systems selected by the inspector from A.5 above, provide a copy of the examination records, and associated corrective action documents.

4. Updated schedules for item A.1 (including schedule showing contingency repair plans if available).

5. Copy of the procedures which govern the scope, equipment used, and implementation of the inspections required to identify boric acid leakage from systems, and components above the vessel head.

6. Copy of any documentation of:

   a. engineering evaluations/assessments of boric acid related deposits and associated wastage or corrosion for safety significant components; and

   b. corrective actions for coolant leakage including boric acid deposits on safety-related components identified since the beginning of the last refueling outage.

7. Copy of the plant procedures used to perform inspections to identify reactor coolant system leaks or boric acid deposits and the procedures for resolution of leaks or boric acid deposits.

8. Provide a copy of the EPRI Examination Technique Specification Sheets, which support qualification of the ET probes to be used during the upcoming SG tube inspections.

9. Provide a copy of the guidance to be followed if a loose part or foreign material is identified in the SGs.

10. Copy of document describing actions to be taken if a new SG tube degradation mechanism is identified.

11. Identify the types of SG tube repair processes which will be implemented for defective SG tubes (including any NRC reviews/evaluation/approval of this repair process). Provide the flaw depth sizing criteria to be applied for ET indications identified in the SG tubes.

12. Provide a copy of the site specific documents, which implement the MRP-139 Program, and a copy of the baseline and inservice inspection schedules for the welds affected by this program.

13. Identify any dissimilar welds, which were excluded from the MRP-139 Guidelines, where the site is relying on NSSS vendor documents to exclude these welds from this program. For these welds, (if any) provide a copy of the NSSS vendor documents and site documents, which provide the basis for excluding these welds from the MRP-139 Program.

14. Ready access to:

    a. Sections V, IX, and XI of the ASME Code, with Editions applicable to the inservice inspection program and the repair/replacement program;

    b. MRP-139, “Materials Reliability Program: Primary System Piping Butt Weld Inspection and Evaluation Guideline” and associated site implementing procedures; and

    c. EPRI and industry standards referenced in the site procedures used to perform the SG tube eddy current examination, which includes EPRI documents: TR-107621-R1, “Steam Generator Integrity Assessment Guidelines,” TR-107620-R1, “Steam Generator In-Situ Pressure Test Guidelines,” and 1003138, “Pressurized Water Reactor Steam Generator Examination Guidelines.”

Ready access is typically facilitated by providing copies of these standards at the on-site NRC inspection location for the duration of the inspection.

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Sincerely,

/RA/
David E. Hills, Chief
Engineering Branch 1
Division of Reactor Safety

Docket No. 50-455
License No. NFP-66

Enclosure: INSERVICE INSPECTION DOCUMENT REQUEST

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