



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

June 5, 2014

LICENSEE: Exelon Generation Company, LLC

FACILITY: Byron Station, Units 1 and 2
Braidwood Station, Units 1 and 2

SUBJECT: SUMMARY OF TELEPHONE CONFERENCE CALL HELD ON MAY 21, 2014, BETWEEN THE U.S. NUCLEAR REGULATORY COMMISSION AND EXELON GENERATION COMPANY, LLC CONCERNING DRAFT REQUEST FOR ADDITIONAL INFORMATION, SET 29, PERTAINING TO THE BYRON STATION AND BRAIDWOOD STATION, LICENSE RENEWAL APPLICATION (TAC NOS. MF1879, MF1880, MF1881, MF1882)

The U.S. Nuclear Regulatory Commission (NRC or the staff) and representatives of Exelon Generation Company, LLC (Exelon or the applicant), held a telephone conference call on May 21, 2014, to discuss and clarify the staff's draft request for additional information (DRAI), Set 29, concerning the Byron Station, Units 1 and 2, and the Braidwood Station, Units 1 and 2, license renewal application. The telephone conference call was useful in clarifying the intent of the staff's DRAIs.

Enclosure 1 provides a listing of the participants, and Enclosure 2 contains a listing of the DRAIs discussed with the applicant, including a brief description on the status of the items.

The applicant had an opportunity to comment on this summary.

/RA/

Lindsay Robinson, Project Manager
Projects Branch 1
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket Nos. 50-454, 50-455, 50-456, and 50-457

Enclosures:

1. List of Participants
2. List of Draft Request for Additional Information

cc w/encls: Listserv

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BETWEEN THE U.S. NUCLEAR REGULATORY COMMISSION AND EXELON
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ADDITIONAL INFORMATION, SET 29, PERTAINING TO THE BYRON
STATION AND BRAIDWOOD STATION, LICENSE RENEWAL APPLICATION
(TAC NOS. MF1879, MF1880, MF1881, MF1882)

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TELEPHONE CONFERENCE CALL
BYRON STATION, UNITS 1 AND 2, AND BRAIDWOOD STATION, UNITS 1 AND 2
LICENSE RENEWAL APPLICATION

LIST OF PARTICIPANTS
May 21, 2014

PARTICIPANTS

AFFILIATIONS

Lindsay Robinson	U.S. Nuclear Regulatory Commission (NRC)
Roger Kalikian	NRC
Seung Min	NRC
John Hufnagel	Exelon Generating Company, LLC (Exelon)
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DRAFT REQUEST FOR ADDITIONAL INFORMATION
BYRON STATION, UNITS 1 AND 2, AND BRAIDWOOD STATION, UNITS 1 AND 2,
LICENSE RENEWAL APPLICATION

May 21, 2014

The U.S. Nuclear Regulatory Commission (NRC or the staff) and representatives of Exelon Generation Company, LLC (Exelon or the applicant), held a telephone conference call on May 21, 2014, to discuss and clarify the following draft request for additional information (DRAI), Set 29, concerning the Byron Station, Units 1 and 2, and the Braidwood Station, Units 1 and 2, license renewal application (LRA).

DRAI B.2.1.5-1a

Applicability:

Byron Station (Byron) and Braidwood Station (Braidwood), all units

Background:

By letter dated January 13, 2014, the applicant responded to RAI B.2.1.5-1, which addressed loss of material due to wear of control rod drive mechanism (CRDM) nozzles resulting from interactions with CRDM nozzle thermal sleeves. The applicant stated that it is planning to demonstrate, using analysis, that the CRDM nozzle wear will not exceed a minimum safe value such that examinations will not be required during the period of extended operation. The applicant further stated that when completed, the analyses will include a detailed American Society of Mechanical Engineers (ASME) Code evaluation of the CRDM housing with a reduced wall thickness using the bounding CRDM loads and transients. In addition, all ASME Code stress categories will be evaluated utilizing a finite element analysis and will explicitly consider all conditions to which the CRDM housing is subjected during normal and upset conditions.

Issue:

The staff cannot determine the adequacy of the applicant's analysis since this analysis has yet to be completed. Additional information is necessary to confirm that the applicant's analysis has an adequate technical basis and that analytical results are acceptable for managing CRDM nozzle wear.

Request:

1. Describe the technical basis of the analysis and specific references for the acceptance criteria of the analysis (e.g., ASME Code Section III Edition and paragraphs and current licensing basis document sections). As part of the response, confirm whether the acceptance criteria adequately address the design, normal, upset, emergency, faulted, testing, and cyclic (i.e., fatigue analysis) loading conditions in updated final safety analysis report (UFSAR) Section 3.9 and its subsections.
2. Upon completion of the CRDM nozzle wear analysis, provide the results confirming that the wear indications meet the acceptance criteria discussed in Request Part 1.

ENCLOSURE 2

If the analysis finds that the acceptance criteria cannot be met for the maximum possible wear depth of 0.1075 inches, clarify whether volumetric examinations will be performed to monitor the wear depths for adequate aging management.

3. Provide any necessary updates to the LRA, consistent with the applicant's response to Request Parts 1 and 2 (e.g., revisions to the time-limited aging analyses and UFSAR supplements in the LRA).

Discussion: The applicant requested clarity on the staff's concern. Minor edits were proposed. Deletions are annotated by strikethrough. This question will be sent as part of the formal request titled: "RAI B.2.1.5-1a."

DRAI B.2.1.5-2a

Applicability:

Byron and Braidwood

Background:

By letter dated January 13, 2014, the applicant responded to RAI B.2.1.5-2, which addressed loss of material due to wear of CRDM nozzle thermal sleeves. The applicant indicated that based on the current examination results at Byron and Braidwood, none of the evaluated thermal sleeve indications approach the minimum wall thickness. The applicant also stated that as a result of the initial visual examinations at each unit, the five thermal sleeves with the worst wear were selected to be examined with ultrasonic testing (UT) in order to obtain measurements of the wear indications. In addition, the applicant indicated the applicant's ASME Section XI Inservice Inspection, Subsections IWB, IWC, and IWD, program will monitor the depths of these worst wear indications for aging management.

Issue:

It is not clear to staff that the initial examinations detected the worst wear locations because the applicant's response did not specifically state where on the thermal sleeves the ~~worst~~ wear was located. In addition, the applicant's response does not include revisions to the UFSAR supplement (LRA Section A.2.1.1) for the ASME Section XI Inservice Inspection, Subsections IWB, IWC, and IWD, program to specify the inspections of the thermal sleeves, as described in the applicant's response to RAI B.2.1.5-2.

Request:

1. Describe the locations of the thermal sleeve wear to confirm that the initial visual examinations were capable of detecting the worst wear indications.
2. Justify why the applicant's response does not include revisions to the UFSAR supplement (LRA Section A.2.1.1) to identify the additional inspections of the thermal sleeves. Alternatively, revise the UFSAR supplement to identify the additional inspections of the thermal sleeves.

Discussion: The applicant requested clarity on the staff's concern. Minor edits were proposed. Deletions are annotated by strikethrough. This question will be sent as part of the formal request titled: "RAI B.2.1.5-2a."