



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

December 4, 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
OCTOBER 7, 2014, BETWEEN THE U.S. NUCLEAR REGULATORY
COMMISSION AND EXELON GENERATION COMPANY, LLC CONCERNING
DRAFT REQUEST FOR ADDITIONAL INFORMATION, SET 42, 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 October 7, 2014, to discuss and clarify the staff's draft request for additional information (DRAI), Set 42, 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 the DRAI 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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TELEPHONE CONFERENCE CALL
BYRON STATION, UNITS 1 AND 2, AND BRAIDWOOD STATION, UNITS 1 AND 2
LICENSE RENEWAL APPLICATION

LIST OF PARTICIPANTS
October 7, 2014

PARTICIPANTS

AFFILIATIONS

Lindsay Robinson	U.S. Nuclear Regulatory Commission (NRC)
Bart Fu	NRC
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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

October 7, 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 October 7, 2014, to discuss and clarify the following draft request for additional information (DRAI), Set 42, concerning the Byron Station, Units 1 and 2, and Braidwood Station, Units 1 and 2, license renewal application (LRA).

DRAI B.2.1.24-1a

Applicability:

Byron Station and Braidwood Station (BBS), all units

Background:

By letter dated May 19, 2014, the staff issued request for additional information (RAI) B.2.1.24-1 requesting additional information regarding higher-than expected wear rates in flux thimble tubes at Braidwood Units 1 and 2, and also an explanation that examinations were not performed on a few tubes.

In a letter dated June 9, 2014, the applicant provided a response to the staff's RAI.

Issue:

In the RAI response, the applicant discussed issues based on outage inspections from 2007 to 2012 for both Braidwood Unit 1 and Unit 2. The staff recently discovered from the NRC 71002 inspection that, during the applicant's most recent outage inspections in May of 2014 for Unit 2 and in September of 2013 for Unit 1, the applicant was not able to complete eddy current examinations on most of the flux thimble tubes. These issues were not disclosed to the staff during the onsite audit in December 2013, nor in the RAI response dated June 9, 2014.

Request:

- 1) Describe results of the latest flux thimble tube inspections at both Braidwood Units 1 and 2. Provide specific information where tube wear data were not obtained.
- 2) Justify the adequacy of the program when tube examinations are not performed as planned.
- 3) Provide technical basis to assure that tube wear acceptance criteria are met and that the inspection program is adequate.
- 4) Clarify if there have been similar issues at Byron Units 1 and 2, such as not being able to complete eddy current examinations or failure to obtain data on any of the tubes.

ENCLOSURE 2

Describe cases in which higher-than expected wear or under-predicting of wear has occurred on any of the tubes.

Discussion: The applicant requested clarification on the staff's request regarding the wording "not disclosed." The applicant understood the request but claimed to be confused by the staff's background and issue regarding the request. The applicant suggested a different wording such as, "not provided," for the staff's consideration. The staff revised the background, issue, and request (see below) to better clarify the staff's concern. This DRAI was formally sent as an RAI to the applicant on October 10, 2014, titled: "RAI B.2.1.24-1a."

Background:

By letter dated May 19, 2014, the staff issued request for additional information (RAI) B.2.1.24-1, requesting additional information regarding higher-than expected wear rates in flux thimble tubes at Braidwood Units 1 and 2. In addition, the staff also questioned the adequacy of the program because it was not able to perform examinations on all the tubes.

By letter dated June 9, 2014, the applicant provided a response to the staff's RAI. In the response, the applicant discussed high wear-rate issues, and its failure to obtain data on a few tubes based on outage inspections from 2007 to 2012 for both Braidwood Unit 1 and Unit 2. The applicant also stated that several corrective actions are being implemented to address the issues related to completing eddy current examinations. One corrective action was to increase the inspection frequency to perform examinations every outage. The staff closed the issue based on the applicant's response.

During the NRC 71002 inspection at Braidwood in October of 2014, the staff discovered that the applicant was not able to complete eddy current examinations on any of the 58 tubes at Braidwood Unit 1 during the September 2013 outage, and completed only seven of the 58 flux thimble tubes at Braidwood Unit 2 during the May 2014 inspection. The information regarding the Braidwood Unit 1 inspection was not provided to the staff during the onsite audit in December of 2013. In addition, the information regarding the Braidwood Unit 2 inspection along with the Braidwood Unit 1 problems was not discussed in the RAI response dated June 9, 2014.

Issue:

The staff is concerned that the Flux Thimble Tube Inspection aging management program may not be adequate if tube wear examinations are not performed.

Request:

- 1) Describe results of the latest flux thimble tube inspections at Braidwood Units 1 and 2. Provide specific information where tube wear data were not obtained.
- 2) Justify the adequacy of the program when tube examinations are not performed as planned.
- 3) Provide technical basis to assure that tube wear acceptance criteria are met and that the inspection program is adequate.

- 4) Clarify if there have been similar issues at Byron Units 1 and 2, such as not being able to complete eddy current examinations or failure to obtain data on any of the tubes. Describe cases in which higher-than expected wear or under-predicting of wear has occurred on any of the tubes.
- 5) Clarify if there have been any leakage events at BBS due to flux thimble tube wear.