



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

December 18, 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 16, 2014, AND OCTOBER 23, 2014, BETWEEN THE U.S.
NUCLEAR REGULATORY COMMISSION AND EXELON GENERATION
COMPANY, LLC CONCERNING DRAFT REQUEST FOR ADDITIONAL
INFORMATION, SET 43, 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 16, 2014, and October 23, 2014, to discuss and clarify the staff's draft request for additional information (DRAI), Set 43, 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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OFFICE	LA:RPB1:DLR*	PM:RPB1:DLR	BC:RPB1:DLR	PM:RPB1:DLR
NAME	YEdmonds	LRobinson	YDiaz-Sanabria	LRobinson
DATE	12/11/14	12/16/14	12/16/14	12/18/14

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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 16, 2014, and October 23, 2014

PARTICIPANTS

AFFILIATIONS

Lindsay Robinson	U.S. Nuclear Regulatory Commission (NRC)
Allen Hiser	NRC
Mark Yoo	NRC
John Hufnagel	Exelon Generating Company, LLC (Exelon)
Al Fulvio	Exelon
Don Warfel	Exelon
Jim Annett	Exelon
Albert Piha	Exelon
Tom Quintenz	Exelon
Don Brindle	Exelon
Ralph Wolen	Exelon
Pete Tamburro	Exelon
Mark Gray	Westinghouse Electric Company (Westinghouse)
Tom Meikle	Westinghouse

DRAFT REQUEST FOR ADDITIONAL INFORMATION
BYRON STATION, UNITS 1 AND 2, AND BRAIDWOOD STATION, UNITS 1 AND 2,
LICENSE RENEWAL APPLICATION

October 16, 2014, and October 23, 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 16, 2014, and October 23, 2014 to discuss and clarify the following draft request for additional information (DRAI), Set 43, concerning the Byron Station, Units 1 and 2, and the Braidwood Station, Units 1 and 2, license renewal application (LRA).

DRAI 4.3.4-3b

Applicability:

Byron Station and Braidwood Station (BBS), all units

Background:

In its response to request for additional information (RAI) 4.3.4-3a, by letter dated September 11, 2014, the applicant provided its principles and bases for choosing a location made from one material to serve as the leading location for components within the same transient section that are made from different materials. In its response, the applicant stated that there are four transient sections at ~~BBS Byron and Braidwood, Units 1 and 2~~, that included components of different materials. To justify selecting the leading location(s) to bound the other components, the applicant stated it applied bases dependent on the screening CUF_{en} values, the conservatism of the analysis method, and the range of the F_{en} potential reduction of each component and material.

Issue:

In its evaluation of the Pressurizer Transient Section, the applicant provided its justification to: (a) select the Surge Nozzle Structural Weld Overlay (SWOL) as the leading location and (b) remove the Lower Head at Heater Penetration and Upper Shell locations from consideration. The applicant stated that these eliminated components were analyzed using a more conservative methodology; therefore, more reduction in the CUF_{en} values are expected than for the Surge nozzle SWOL. In its evaluation for the Unit 1 Replacement Steam Generator (RSG) Transient Section, the applicant also applied this same justification to eliminate the Inlet & Outlet Nozzle, Weld location. The staff is unclear how this justification would ensure that refinement of the CUF_{en} value of one material could bound the locations of different materials. The applicant did not provide sufficient justification that removing conservatism for one material would result in a proportional refinement for another material. The applicant did not demonstrate that these components would not need to be monitored by the Fatigue Monitoring program for environmentally assisted fatigue.

Also in its evaluation of the Unit 1 RSG transient section, the applicant removed the Primary Head Drain Hole from consideration. The leading location for this transient section, the Primary Head/Tubesheet Juncture, has a screening CUF_{en} value of 2.16. The screening CUF_{en} value for

ENCLOSURE 2

the Primary Head Drain Hole has a higher screening CUF_{en} value of 2.234 but was analyzed with a more conservative methodology. As part of its stress analysis ranking methodology, the applicant stated that it would only eliminate components from consideration if: (a) its screening CUF_{en} value is lower or the same and (b) its analysis method was more conservative. However, the applicant justified removing the Primary Head Drain Hole by stating that the screening CUF_{en} value for the leading location was only slightly less than the eliminated location. The applicant stated that this is not a concern because the Primary Head Drain Hole has a different analysis rank, therefore the potential reduction in the CUF_{en} value is greater. The staff is unclear why the analysis rank difference justifies removing this component from consideration ~~applicant did not follow its criteria to eliminate components.~~ The staff is unclear if there are other instances where the applicant removed components from consideration that had a higher screening CUF_{en} than the selected leading location. ~~the applicant did not follow its elimination criteria for other transient section evaluations as well.~~

Request:

1. For the following components, provide ~~additional~~ justification that the refinement of the leading component material analysis would result in the leading component material location bounding ~~would bound the these remaining~~ component materials in the transient section:
 - a. Lower Head at Heater Penetration (Pressurizer Transient Section)
 - b. Upper Shell (Pressurizer Transient Section)
 - c. Inlet & Outlet Nozzle, Weld (Unit 1 RSG Transient Section)
2. For the Primary Head Drain Hole (Unit 1 RSG Transient Section), provide ~~additional~~ justification why the component was removed from consideration when the screening CUF_{en} was higher than the screening CUF_{en} value for the retained leading location. ~~CUF_{en} elimination criterion was not met.~~
3. Identify any additional instances where the screening CUF_{en} value for a component that was removed from consideration was higher than the screening CUF_{en} value of the retained leading location within the transient section. Justify removing these locations from consideration. ~~Confirm that the acceptance criteria for removing components from consideration were met for all other eliminated components in the remaining transient sections. If there are instances where the acceptance criteria were not met, justify the basis for eliminating those components from consideration.~~

Discussion: Two separate teleconference calls were held to work through technical questions from the applicant. The applicant stated that Westinghouse developed the methodology used to identify and compare screening CUF_{en} values for various components throughout all BBS units. Westinghouse discussed their methodology to address the staff's concerns. However, the staff's concerns were not addressed and the staff required additional information on the docket to evaluate the methodology. Several edits were made to the original DRAI; underline represents information that was added and strikethrough represents information that was deleted. This DRAI was formally sent as an RAI to the applicant on October 28, 2014, titled: "RAI 4.3.4-3b."