

December 19, 2006

Mr. Christopher M. Crane
President and Chief Nuclear Officer
Exelon Generation Company, LLC
Braidwood Station
4300 Winfield Road
Warrenville, IL 60555

SUBJECT: NRC RECEIPT OF BRAIDWOOD STATION, UNITS NOS. 1 AND 2,
RESPONSES TO GENERIC LETTER 2003-01 "CONTROL ROOM
HABITABILITY" (TAC NOS. MB9774 AND MB9775)

Dear Mr. Crane:

The Nuclear Regulatory Commission (NRC) acknowledges the receipt of your responses to Generic Letter (GL) 2003-01, "Control Room Habitability," dated August 11, 2003 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML032310390); December 9, 2003 (ADAMS Accession No. ML033560302); March 19, 2004 (ADAMS Accession No. ML040890545); September 30, 2004 (ADAMS Accession No. ML042740704); November 29, 2004 (ADAMS Accession No. ML043420211); February 7, 2005 (ADAMS Accession No. ML050490183); and July 11, 2005 (ADAMS Accession No. ML051920406), for the Braidwood Station, Unit Nos. 1 and 2 (Braidwood). This letter provides a status of your responses and describes any additional information that may be required to consider your responses to GL 2003-01 complete.

GL 2003-01 requested that you confirm that your control rooms meet their design bases (e.g., General Design Criterion (GDC) 1, 3, 4, 5, and 19, draft GDC, or principal design criteria), with special attention to: (1) determination of the most limiting unfiltered and/or filtered inleakage into the control room and comparison to values used in your design bases for meeting control room operator dose limits from accidents (GL 2003-01, Item 1a); (2) determination that the most limiting unfiltered inleakage is incorporated into your hazardous chemical assessments; and, (3) determination that reactor control capability is maintained in the control room or at the alternate shutdown location in the event of smoke (GL 2003-01, Item 1b). GL 2003-01 further requested information on any compensatory measures in use to demonstrate control room habitability, and plans to retire them (GL 2003-01, Item 2).

By letter dated February 7, 2005, you reported the results of American Society for Testing and Materials (ASTM) Standard E741, "Standard Test Method for Determining Air Change in a Single Zone by Means of a Tracer Gas Dilution," tracer gas tests for the Braidwood control room:

The Braidwood Station limiting design basis accident analysis control room operator dose, based on an assumed CRE [control room envelope] unfiltered inleakage rate of 100 SCFM [standard cubic feet per minute], bounds the dose that would result from the most limiting measured unfiltered inleakage rate of 29.3 SCFM, and remains within the 10 CFR 50, Appendix A, GDC 19 limits of five rem whole body and 30 rem thyroid. Therefore, Braidwood Station has

demonstrated that the most limiting unfiltered inleakage into the CRE is bounded by the value assumed in the design basis accident radiological analyses for control room habitability.

You indicated that Braidwood has a chemical control program for on-site chemicals which ensures there is no impact to the site's current control room habitability analysis, and that analyses performed in accordance with Regulatory Guide (RG) 1.78, "Evaluating the Habitability of a Nuclear Power Plant Control Room during a Postulated Hazardous Chemical Release," and RG 1.95, "Protection of Nuclear Power Plant Control Room Operators Against an Accidental Chlorine Release," concluded that no offsite toxic chemicals were a concern for control room habitability. You also indicated that reactor control capability is maintained from either the control room or the alternate shutdown panel in the event of smoke.

GL 2003-01 further requested that you assess your technical specifications (TSs) to determine if they verify the integrity of the CRE, including ongoing verification of the inleakage assumed in the design-basis analysis for control room habitability, and in light of the demonstrated inadequacy of a delta pressure (ΔP) measurement to alone provide such verification (GL 2003-01, Item 1.c). You stated that the unit has a TS requirement for ΔP testing. In your July 11, 2005, response you withdrew your previous license amendment request (LAR) for administrative controls and indicated that you would evaluate your submittal with respect to the elements contained in Technical Specification Task Force Traveler No. 448 (TSTF-448) "Control Room Habitability," and resubmit a proposed LAR based on that evaluation. As permitted by GL 2003-01, you provided a schedule for revising the surveillance requirement in the TS to reference an acceptable surveillance methodology. Your schedule for resubmitting the LAR is within 90 days of NRC approval of TSTF-448.

The information you provided also supported the fact that there are no compensatory measures in place to demonstrate control room habitability.

Your commitment to submit a proposed LAR based on TSTF-448, following our formal review and approval, is acceptable for purposes of closing out your response to GL 2003-01. The NRC staff will monitor submission of the proposed LAR and interact with you as necessary during the amendment process.

If you have any questions regarding this correspondence, please contact me at (301) 415-3733.

Sincerely,

/RA/

Robert F. Kuntz, Project Manager
Plant Licensing Branch III-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. STN 50-456 and STN 50-457

cc: See next page

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Robert F. Kuntz, Project Manager
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Division of Operating Reactor Licensing
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Docket Nos. STN 50-456 and STN 50-457

cc: See next page

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