

September 7, 2007

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

SUBJECT: BRAIDWOOD STATION, UNIT 2 - EVALUATION OF FINITE ELEMENT ANALYSIS IN SUPPORT OF ALLOY 82/182 PRESSURIZER BUTT WELD INSPECTIONS IN 2008 AS PROVIDED BY CONFIRMATORY ACTION LETTER NRR-07-008 (TAC NO. MD4135)

Dear Mr. Crane:

On March 22, 2007, the U.S. Nuclear Regulatory Commission (NRC) issued Confirmatory Action Letter (CAL) No. NRR-07-008 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML070740294) regarding dissimilar metal welds in the pressurizer surge, spray, and safety/relief nozzle-to-safe end welds at Braidwood Station, Unit 2. The CAL and the supporting commitment letter (ADAMS Accession No. ML070520499) indicate that inspection and mitigation actions may be conducted during your spring 2008 refueling outage, contingent on the industry providing an analysis that demonstrates an acceptable level of safety to the NRC for the operation of these welds until the spring of 2008. This letter acknowledges receipt of your letter dated August 3, 2007 (ADAMS Accession No. ML072150585), informing the NRC that the analysis referred to by this CAL and the supporting commitment letter has been completed, and that the analysis is applicable to your plant.

The NRC received MRP-216, Rev. 1, "Materials Reliability Program: Advanced FEA [Finite Element Analysis] Evaluation of Growth of Postulated Circumferential PWSCC [Primary Water Stress-Corrosion Cracking] Flaws in Pressurizer Nozzle Dissimilar Metal Welds" on August 13, 2007 (ADAMS Accession No. ML072410235). Based on our review of this report, the NRC concludes that the analysis provides adequate justification to permit inspections during your spring 2008 refueling outage, and that the analysis is applicable to Braidwood Station, Unit 2. The results of the staff's review are contained in a safety assessment dated August 31, 2007, 2007 (ADAMS Accession No. ML072400199) and the associated contractor report (ADAMS Accession No. ML072470394).

Based on the above, the NRC concludes that a plant shutdown by December 31, 2007, is no longer required. Therefore, the pressurizer surge, spray, and safety/relief nozzle-to-safe end Alloy 82/182 butt weld inspections for Braidwood Station, Unit 2 must be performed prior to exiting your scheduled spring 2008 refueling outage. All other requirements of the CAL and the supporting commitment letter regarding enhanced inspection and leakage monitoring requirements for the reactor coolant system and associated reports remain valid.

The CAL will remain open until all CAL commitments pertaining to Braidwood Station, Units 1 and 2 are complete.

Current NRC guidance regarding CALs is contained in the NRC Enforcement Policy and the NRC Enforcement Manual, which are available at the NRC web site at <http://www.nrc.gov/about-nrc/regulatory/enforcement.html> (click on Enforcement Policy or Enforcement Guidance) or by contacting the Government Printing Office (GPO) toll-free at 1-888-293-6498. The GPO is open from 7:00 a.m. to 9:00 p.m. EST, Monday through Friday (except Federal holidays).

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm.html>.

Sincerely,

/RA/

Catherine Haney, Director
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. STN 50-457

cc: See next page

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Sincerely,

/RA/

Catherine Haney, Director
 Division of Operating Reactor Licensing
 Office of Nuclear Reactor Regulation

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Braidwood Station, Units 1 and 2

cc:

Document Control Desk - Licensing
via e-mail

Mr. Dwain W. Alexander, Project Manager
Westinghouse Electric Corporation
via e-mail

Ms. Bridget Little Rorem
Appleseed Coordinator
via e-mail

Howard A. Learner
Environmental Law and Policy
Center of the Midwest
35 East Wacker Dr., Suite 1300
Chicago, IL 60601-2110

Braidwood Senior Resident Inspector
U.S. Nuclear Regulatory Commission
via e-mail

Ms. Lorraine Creek
RR 1, Box 182
Manteno, IL 60950

Illinois Emergency Management Agency
Division of Disaster Assistance &
Preparedness
via e-mail

County Executive
via e-mail

Attorney General
500 S. Second Street
Springfield, IL 62701

Plant Manager - Braidwood Station
via e-mail

Site Vice President - Braidwood
via e-mail

Senior Vice President - Operations Support
via e-mail

Chairman, Ogle County Board
Post Office Box 357
Oregon, IL 61061

Manager Regulatory Assurance - Braidwood
via e-mail

Director - Licensing and Regulatory Affairs
via e-mail

Associate General Counsel
via e-mail

Senior Vice President - Midwest Operations
via e-mail

Vice President - Regulatory Affairs
via e-mail

Manager Licensing - Braidwood, Byron
and LaSalle
via e-mail