

Exelon Generation Company, LLC www.exeloncorp.com
Byron Station
4450 North German Church Road
Byron, IL 61010-9794

June 4, 2008

LTR: BYRON 2008-0054
File: 2.01.0700

United States Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555-0001

Byron Station, Unit 1 and Unit 2
Facility Operating License Nos. NPF- 37 and NPF-66
NRC Docket Nos. STN 50-454 and STN 50-455

Subject: Response to NRC Request Concerning Unresolved Item
05000454/2008008 and 05000455/2008008

Reference: Letter from Ann Marie Stone (USNRC) to Charles G. Pardee (Exelon
Generation Company, LLC), "Byron Station, Units 1 and 2 Follow Up
Inspection of an Unresolved Item (URI) 05000454/2008008;
05000455/2008008," dated May 5, 2008

In the referenced letter, the NRC requested a response within 30 days with our proposed actions and schedule to resolve the noncompliance of the single failure assumptions used in our Ultimate Heat Sink (UHS) design basis analysis.

To achieve compliance, a design basis re-analysis of the UHS is being performed to evaluate the impact of postulated passive electrical single failures. The results of this analysis will be incorporated into the Byron Station design basis via requirements of 10 CFR 50.59, "Changes, tests, and experiments." This is expected to be completed by December 5, 2008. We do not anticipate any physical modifications to the UHS will be necessary.

In the interim, we have invoked the provisions of Administrative Letter 98-10, "Dispositioning of Technical Specifications That are Insufficient to Assure Plant Safety." We have concluded that the UHS remains operable with administrative controls in place to ensure seven of the eight UHS cooling cells are operable to be within the Limiting Condition for Operations for Technical Specifications 3.8.9, "Ultimate Heat Sink." These interim controls will remain in place until the design basis for the UHS is revised.

June 4, 2008
U.S. Nuclear Regulatory Commission
Page 2

There are no regulatory commitments associated with this response. Should you have any questions about this letter, please contact Mr. William Grundmann at (815) 406-2800.

Respectfully,

A handwritten signature in black ink, appearing to read 'David M. Hoots', with a stylized flourish at the end.

David M. Hoots
Site Vice President
Byron Station

cc: Regional Administrator – NRC Region III
NRC Senior Resident Inspector – Byron Station
Director, Office of Enforcement