

RS-11-130

August 5, 2011

Mark Satorius  
Regional Administrator – Region III  
U.S. Nuclear Regulatory Commission  
2443 Warrenville Road Suite 210  
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Braidwood Station, Units 1 and 2  
Facility Operating License Nos. NPF-72 and NPF-77  
NRC Docket Nos. STN 50-456 and STN 50-457

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

**Subject:** Notification of Completion of Regulatory Commitment Concerning Steam Generator  
Tube Rupture Analysis

**Reference:** 1) Letter from Timothy J. Tulon (Exelon Generation Company, LLC), to U.S. Nuclear  
Regulatory Commission, "Response to NRC Follow-Up Inspection Report;  
05000454/2011010; 05000455/2011010," dated February 18, 2011

2) Letter from Daniel J. Enright (Exelon Generation Company, LLC), to U.S. Nuclear  
Regulatory Commission, "Response to NRC Verification Inspection Report;  
05000456/2011009; 05000457/2011009," dated March 2, 2011

3) Letter from Craig Lambert (Exelon Generation Company, LLC) to U.S. Nuclear  
Regulatory Commission, "Request for License Amendment Regarding Measurement  
Uncertainty Recapture (MUR) Power Uprate," dated June 30, 2011

In reference 1, Exelon Generation Company, LLC (EGC) committed to conducting an extent of condition review for Byron Station by August 4, 2011, of other transients and accidents outlined in Chapter 15 of the Byron Station Updated Final Safety Analysis Report to identify similar discrepancies with respect to the inappropriate reliance or assumption of a single active failure. Additionally, identified discrepancies would be resolved in the Corrective Action Program (CAP) and communicated to the NRC Regional Administrator. EGC committed to perform the same review for Braidwood Station in reference 2.

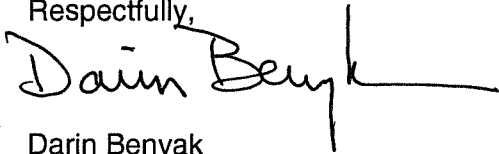
This letter is to notify the NRC the extent of condition review for Byron and Braidwood Stations is complete and that it did not identify additional similar discrepancies with respect to the inappropriate reliance on the assumption of a single active failure. The review determined that for the extent of condition for transient and accidents, the limiting single failures included in the analyses of record remain the limiting single failures, given the need to consider both passive and active failures of electrical components.

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Although outside the scope of this extent of condition, a more limiting single active failure was discovered in the Steam Generator Tube Rupture (SGTR) analysis. The failure to stroke close of one of the parallel Safety Injection (SI) Charging Pump to Reactor Coolant Cold Leg Injection Isolation Valves (i.e., SI8801A/B) would not terminate SI flow in time to prevent steam generator (SG) overfill. This discrepancy has been entered into the CAP (i.e., Issue Report 1189860). An evaluation was conducted and continued operability was supported with compensatory measures in place. The permanent corrective action involves a modification to install backup manual isolation valves in the SI lines containing the SI8801A/B valves. These modifications are considered regulatory commitments in reference 3. With the battery backup modifications to the SG Power Operated Relief Valves (PORVs), previously committed to in references 1, 2, and 3, and the manual isolation valve modification, the limiting single failure for the SGTR analysis will be restored to the loss of one SG PORV.

There are no new regulatory commitments made in this letter. Should you have any questions concerning this letter, please contact Mr. Ken Nicely at (630) 657-2803.

Respectfully,

A handwritten signature in black ink, appearing to read "Darin Benyak", followed by a horizontal line extending to the right.

Darin Benyak  
Director – Licensing and Regulatory Affairs  
Exelon Generation Company, LLC