

Exelon Generation Company, LLC  
1400 Opus Place  
Downers Grove, IL 60515-5701

www.exeloncorp.com

April 4, 2001

RS-01-071

U. S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, D.C. 20555-0001

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: Additional Information Related to Request for Technical Specifications Change,  
"Boron Dilution Protection System"

- References:
- (1) Letter from R. M. Krich (Exelon Generation Company, LLC) to U. S. NRC, "Request for Technical Specification Change - Revise the Applicability of Technical Specification 3.3.9, 'Boron Dilution Protection System (BDPS),' " dated June 19, 2000
  - (2) Letter from M. Chawla (U. S. NRC) to O. D. Kingsley (Exelon Generation Company, LLC), "Request for Technical Specifications Change to Revise the Applicability of Technical Specification 3.3.9, Boron Dilution Protection System (BDPS) for Byron Station, Units 1 and 2, and Braidwood Station, Units 1 and 2," dated February 21, 2001
  - (3) Letter from R. M. Krich (Exelon Generation Company, LLC) to U. S. NRC, "Supplement to Request for Technical Specification Change, 'Boron Dilution Protection System,'" dated March 16, 2001

In the Reference 1 letter, in accordance with 10 CFR 50.90, "Application for amendment of license or construction permit," we requested a change to the Technical Specifications (TS) of Facility Operating License Nos. NPF-72, NPF-77, NPF-37 and NPF-66, for the Braidwood Station, Units 1 and 2, and the Byron Station, Units 1 and 2, respectively. The proposed change revised the Applicability of TS 3.3.9, "Boron Dilution Protection System (BDPS)." As stated in the Reference 1 letter, during the upcoming Braidwood Station and Byron Station refueling outages, required modifications supporting the proposed TS change will be installed and the existing automatic valve actuation features of the BDPS will be removed.

A001

As a result of discussions with the NRC on January 24, 2001 and on March 1, 2001, and in response to the Reference 2 letter, we provided a supplement to the proposed TS change in the Reference 3 letter. In addition, as a result of discussions with the NRC on April 2, 2001, we are providing the following additional information requested by the NRC.

Description of the existing Volume Control Tank (VCT) alarms

The existing VCT alarm associated with the letdown divert valve is the "LTDWN FLOW DIVERTED TO HUT" alarm. Level transmitter (LT)-185 on the VCT inputs into this alarm. When VCT level exceeds 95%, this alarm annunciates in the Main Control Room (MCR) and the channel actuates contacts to position the letdown divert valve (i.e., valve CV112A) to the holdup tank (HUT). In addition, when VCT level exceeds 95% as sensed by either level transmitter LT-112 or LT-185 on the VCT, the "VCT LEVEL HIGH/LOW" alarm annunciates in the MCR.

Description of the new VCT alarms

As discussed in the Reference 1 letter, Attachment A, "Description and Safety Analysis of the Proposed Changes," Page 4 of 8, two new alarm windows will be installed in the MCR. The alarm windows will be titled, "Boron Dilution Alert Channel A" and "Boron Dilution Alert Channel B." Boron Dilution Alert Channel A alarm will annunciate in the MCR when either the VCT level transmitter LT-112 reaches 70% or when the letdown divert valve, as sensed by its valve position limit switch, is not aligned to the VCT. Boron Dilution Alert Channel B alarm will annunciate in the MCR when either the VCT level transmitter LT-185 reaches 70% or when the nuclear flux source range detectors indicate neutron flux doubling.

Fail position of the letdown divert valve

The letdown divert valve is an air operated valve with a DC solenoid and directs letdown flow to the VCT upon loss of instrument air or upon loss of 125 VDC solenoid power.

Should you have any questions concerning this letter, please contact Ms. Kelly M. Root at (630) 663-7292.

Respectfully,



R. M. Krich  
Director - Licensing  
Mid-West Regional Operating Group

cc: Regional Administrator - NRC Region III  
NRC Senior Resident Inspector - Braidwood Station  
NRC Senior Resident Inspector - Byron Station  
Office of Nuclear Facility Safety - Illinois Department of Nuclear Safety