

Exelon Generation  
4300 Winfield Road  
Warrenville, IL 60555

www.exeloncorp.com

RS-04-101

July 9, 2004

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

Quad Cities Nuclear Power Station, Unit 2  
Facility Operating License No. DPR-30  
NRC Docket No. 50-265

**Subject:** Response to Review of Preliminary Accident Sequence Precursor Analysis of August 2, 2001, Operational Event

**Reference:** Letter from L. W. Rossbach (NRC) to C. M. Crane (Exelon Generation Company), "Quad Cities Nuclear Power Station, Unit 2 – Review of Preliminary Accident Sequence Precursor Analysis of August 2, 2001, Operational Event," dated May 12, 2004

In the referenced letter, the NRC provided an analysis of an operational event that occurred at Quad Cities Nuclear Power Station (QCNPS) on August 2, 2001, as described in Licensee Event Report (LER) 265-01/001, Revision 1. The NRC requested that Exelon Generation Company, LLC (EGC) review and comment on the preliminary accident sequence precursor (ASP), including the depiction of plant equipment and equipment capabilities. Written guidance was provided for peer review and comment, including requirements for specific supporting documentation. The NRC requested that EGC respond within 60 days. Accordingly, this submittal is due by July 12, 2004.

Details, comments, and documentation of results from our review of the preliminary ASP, using the current QCNPS Probabilistic Risk Assessment (PRA) model, are provided in the attachment to this letter. Results are in general agreement with those of the preliminary ASP analysis, but show a lower conditional core damage probability (CCDP). As calculated by EGC's PRA for QCNPS Unit 2, a CCDP for a single-unit loss of offsite power is  $4.7 \times 10^{-6}$ . The NRC Standardized Plant Analysis Risk (SPAR) model for QCNPS calculated a CCDP of  $5.4 \times 10^{-6}$  for this event. Therefore, the QCNPS PRA supports the NRC's conclusion that this event qualifies as an ASP.

While the CCDPs calculated by the NRC and by the EGC PRA are comparable, the sequences and cutsets dominating those CCDPs show a considerable number of differences. Those differences are described in detail in Section 4 of the attachment. One such difference is in the

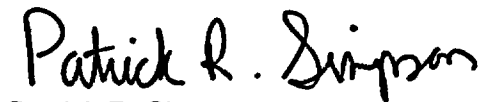
AP01

analysis for the Anticipated Transient Without Scram (ATWS) accident sequence. ATWS probabilities for QCNPS are based on NUREG/CR-5500, Volume III. EGC requests that the NRC provide the bases for the SPAR ATWS probabilities.

The attachment to this letter contains analyses that are considered sensitive information. Therefore, EGC requests that these documents be controlled accordingly and that this information not be made available to the public.

Should you have any questions, please contact Mr. Thomas G. Roddey, at (630) 657-2811.

Respectfully,

A handwritten signature in black ink that reads "Patrick R. Simpson". The signature is written in a cursive, flowing style.

Patrick R. Simpson  
Manager – Licensing

Attachment: Response to Request for Additional Information - Preliminary Accident Sequence  
Precursor Analysis of August 2, 2001, Operational Event (This Document  
Contains Sensitive Information)

cc: Regional Administrator – NRC Region III  
NRC Senior Resident Inspector – Quad Cities Nuclear Power Station