

RS-06-026

February 17, 2006

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

Dresden Nuclear Power Station, Units 2 and 3  
Renewed Facility Operating License Nos. DPR-19 and DPR-25  
NRC Docket Nos. 50-237 and 50-249

Quad Cities Nuclear Power Station, Units 1 and 2  
Renewed Facility Operating License Nos. DPR-29 and DPR-30  
NRC Docket Nos. 50-254 and 50-265

**Subject:** Additional Information Supporting the Request for License Amendment Related to Application of Alternative Source Term

- References:**
1. Letter from P. R. Simpson (Exelon Generation Company, LLC) to U. S. NRC, "Request for License Amendments Related to Application of Alternative Source Term," dated October 10, 2002
  2. Letter from P. R. Simpson (Exelon Generation Company, LLC) to U. S. NRC, "Additional Information Supporting the Request for License Amendment Related to Application of Alternative Source Term," dated September 3, 2005

In Reference 1, Exelon Generation Company, LLC (EGC) requested an amendment to the facility operating licenses for Dresden Nuclear Power Station (DNPS), Units 2 and 3, and Quad Cities Nuclear Power Station (QCNPS), Units 1 and 2. The proposed changes support application of an alternative source term (AST) methodology.

EGC submitted additional information in Reference 2 that was requested by the NRC during a meeting on August 29-30, 2005. In Reference 2, EGC committed to revise the design basis loss-of-coolant accident (LOCA) calculations for DNPS and QCNPS to incorporate the parametric studies supporting an unfiltered leakage of 60,000 cfm during the first 40 minutes following a LOCA as the design basis value. In addition, EGC committed to incorporate into the design basis LOCA calculations the NRC's approach for calculating the time to reach an elemental iodine decontamination factor of 200. The committed date for revising the calculations was prior to implementation of the approved alternative source term license amendment.

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In January 2006, EGC notified the NRC that the design basis LOCA calculations had been revised to address the commitments made in Reference 2. On February 7, 2006, the NRC verbally requested EGC to formally submit the revised design basis LOCA calculations. In response to this request, EGC is providing the revised calculations for DNPS and QCNPS as Attachments 1 and 2, respectively.

Additionally, EGC is providing revised Main Steam Line Break (MSLB) calculations for DNPS and QCNPS as Attachments 3 and 4, respectively. These calculations were recently revised to correct the use of normalized values for activity releases for iodine.

In an e-mail dated January 3, 2006, the NRC questioned whether a postulated Reactor Water Cleanup system high energy line break at DNPS is a more limiting event than the postulated MSLB assumed in EGC's AST analyses. Discussions between EGC and the NRC are ongoing to address the NRC's questions related to this issue.

EGC has reviewed the information supporting a finding of no significant hazards consideration that was previously provided to the NRC in Attachment C of Reference 1. The supplemental information provided in this submittal does not affect the bases for concluding that the proposed license amendment does not involve a significant hazards consideration.

There are no regulatory commitments contained in this letter. If you have any questions concerning this letter, please contact Mr. Kenneth M. Nicely at (630) 657-2803.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 17th day of February 2006.

Respectfully,

  
Patrick R. Simpson  
Manager – Licensing

Attachments:

1. Calculation DRE05-0048, Revision 1, "Dresden Units 2 & 3 Post-LOCA EAB, LPZ, and CR Dose – AST Analysis"
2. Calculation QDC-0000-N-1481, Revision 1, "Quad Cities Units 1 & 2 Post-LOCA EAB, LPZ, and CR Dose – AST Analysis"
3. Calculation DRE02-0035, Revision 2, "Re-analysis of Main Steam Line Break (MSLB) Accident Using Alternative Source Terms"
4. Calculation QDC-0000-N-1266, Revision 2, "Re-analysis of Main Steam Line Break (MSLB) Accident Using Alternative Source Terms"