June 20, 2007

Alex Marion, Executive Director
Nuclear Energy Institute
Nuclear Operations and Engineering
1776 I Street, N.W.
Washington, DC 20006-3708

Dear Mr. Marion,

In a February 14, 2007, letter from Jay Thayer, Nuclear Energy Institute (NEI) to J.E. Dyer, U.S. Nuclear Regulatory Commission (NRC), he proposed that industry perform advanced finite element fracture mechanics analyses to address NRC staff concerns that rupture could occur in pressurizer dissimilar metal nozzle welds without prior evidence of leakage (ML070600672). Consistent with the project plan described in Mr. Thayer's letter, on March 20, 2007 the Electric Power Research Institute provided results of the Phase I draft calculation to the Expert Review Panel for Advanced Finite Element Analysis (FEA) Crack Growth Calculations (ML070940229). This calculation was performed by Dominion Engineering, Inc.

On April 4, 2007, I sent you a letter (ML070940186) to document NRC staff comments and concerns regarding the Phase I draft calculation. In the letter, I indicated that a technical basis document would be provided with additional information related to an NRC staff concern regarding the industry's approach for calculating crack stability. This NRC staff document was provided to the industry prior to the meeting held on this subject on April 9, 2007. Since that time, the technical basis document has been finalized. This letter serves to formally provide you with the final version of that document. The content and scope of the enclosure is essentially unchanged in content and scope from the earlier version.

The NRC staff's final report on the Wolf Creek pressurizer nozzle weld scoping study is also attached. Work on this document was begun in early November 2006, and it contains the results of the staff's scoping fracture mechanics analyses on the pressurizer nozzle weld flaws found at Wolf Creek. The NRC staff discussed the analyses that are documented in this report

during public meetings that took place on November 30, 2006, and December 20, 2006, and during Advisory Committee on Reactor Safeguards (ACRS) meetings held on February 2, 2007, and March 6, 2007. A draft version of this report was provided to the ACRS and has since been updated to include the results of leakage calculations.

Sincerely,

/RA/

Michele G. Evans, Director
Division of Component Integrity
Office of Nuclear Reactor Regulation

Enclosures:
1. Technical Note on Critical Flaw Size Evaluations for Circumferential Cracks in Dissimilar Metal Welds
2. Evaluation of Circumferential Indications in Pressurizer Nozzle Dissimilar Metal Welds at the Wolf Creek Power Plant

CC: A. Marion, NEI
J. Thayer, NEI
C. King, EPRI
C. Harrington, EPRI
D. Weakland, MRP
J. Gasser, MRP
D. Rudland, EMCC
G. Wilkowski, EMCC

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