October 8, 2003

Dr. William D. Travers
Executive Director for Operations
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

SUBJECT: DRAFT FINAL REGULATORY GUIDE 1.168, REVISION 1, "VERIFICATION,
VALIDATION, REVIEWS, AND AUDITS FOR DIGITAL COMPUTER
SOFTWARE USED IN SAFETY SYSTEMS OF NUCLEAR POWER PLANTS"

Dear Dr. Travers:

During the 506th meeting of the Advisory Committee on Reactor Safeguards, October 1-3,
2003, we met with representatives of the NRC staff to discuss draft final Regulatory Guide
1.168, Revision 1, "Verification, Validation, Reviews, and Audits for Digital Computer Software
Used in Safety Systems of Nuclear Power Plants." We also had the benefit of the documents
referenced.

RECOMMENDATION

Revision 1 to Regulatory Guide 1.168 should be issued final.

DISCUSSION

Revision 1 to Regulatory Guide 1.168 addresses quality assurance for digital computer
software in safety-related systems of nuclear power plants. This Guide endorses the Institute
of Electrical and Electronics Engineers (IEEE) Standards 1012-1998 and 1028-1997 with minor
exceptions. IEEE Standard 1012 addresses Verification and Validation, and IEEE Standard
1028 addresses Reviews and Audits. We agree with the staff that updating Regulatory Guide
1.168 by endorsing the new version of the IEEE Standards will simplify the staff's review
process and enable licensees and applicants to develop a unified coherent means of meeting
the requirements of 10 CFR Part 50.

The proposed revision to Regulatory Guide 1.168 was issued for public comment in January
2003 as Draft Regulatory Guide DG-1123. The comments received from members of the public
have been appropriately resolved by the staff. We agree with the staff's position that

Regulatory Guide 1.168, Revision 1, has neither backfit nor substantive policy implications. This Guide should be issued.

Sincerely,

/RA/

Mario V. Bonaca
Chairman

References:
1. Memorandum dated August 15, 2003, from Michael Mayfield, Office of Nuclear Regulatory Research, to John T. Larkins, ACRS, Subject: Request for ACRS review of Draft Final Revision 1 of DG-1123, "Verification, Validation, Reviews, and Audits for Digital Computer Software Used in Safety Systems of Nuclear Power Plants."
2. U.S. Nuclear Regulatory Commission, Regulatory Guide 1.168, Revision 1, "Verification, Validation, Reviews, and Audits for Digital Computer Software Used in Safety Systems of Nuclear Power Plants," August 2003.
3. Institute of Electronics and Electrical Engineers (IEEE) Standard-1012-1998, "IEEE Standard for Software Verification and Validation."
4. Institute of Electronics and Electrical Engineers (IEEE) Standard-1028-1997, "IEEE Standard for Software Reviews."