



Department of Energy

Washington, DC 20585

January 29, 2004

The Honorable John T. Conway
Chairman
Defense Nuclear Facilities Safety Board
625 Indiana Avenue, NW
Washington, D.C. 20004-2941

Dear Mr. Chairman:

The Implementation Plan for Software Quality Assurance (SQA) in response to Defense Nuclear Facilities Safety Board (DNFSB) Recommendation 2002-1 requires the Office of Environment, Safety and Health (EH) to perform a gap analysis on the toolbox codes. Commitment 4.2.1.3 requires this analysis to determine the actions needed to bring the codes into compliance with SQA criteria and to develop a schedule with milestones to upgrade each code based on the gap analysis results.

This commitment was reported on December 3, 2003, as partially complete. At that time, three of the six gap analyses reports were submitted as interim reports for MACCS2, ALOHA, and EPICODE. The remaining three gap analysis interim reports for MELCOR, GENII, and CFAST have now been completed and are attached. The gap analysis evaluated the SQA attributes of the six codes against identified criteria to determine the actions needed to bring the specific software into compliance with established SQA criteria. Because the Department does not own the six toolbox codes, a firm schedule for upgrading each code cannot be developed. The gap analysis does however, include an estimate of the level of effort required to upgrade each code based on the gap analysis results; a total of eight full-time equivalent years is estimated to upgrade all six toolbox codes. We are working with Program Secretarial Offices and the code developers to evaluate the feasibility and schedule for completing the upgrades.

The gap analyses identify no software-induced errors in the codes that would have led to non-conservatisms at defense nuclear facilities. The attached interim reports document this finding, provide the opportunity for peer review, and promote discussion within the SQA community. Peer review is in progress and code developer review will be completed as soon as practical. We will keep your staff apprised of our progress and expected completion schedule. Completion of this commitment will not impact other ongoing SQA Implementation Plan activities.

Please contact me at (202) 586-6151, or have your staff contact Frank Russo at (301) 903-8008 if you have any questions concerning this commitment.

Sincerely,

A handwritten signature in black ink that reads "Beverly A. Cook". The signature is written in a cursive style with a large, prominent initial "B".

Beverly A. Cook
Assistant Secretary
Environment, Safety and Health

Attachments (3)

cc: Mark Whitaker, DR-1
Frank Russo, EH-3
Chip Lagdon, EH-31

CFAST Gap Analysis Report
GENII Gap Analysis Report
MELCOR Gap Analysis Report