Department of Energy
Washington, DC 20585

March 28, 2003

MEMORANDUM TO: EVERET H. BECKNER
DEPUTY ADMINISTRATOR FOR DEFENSE PROGRAMS

JESSIE HILL ROBERSON
ASSISTANT SECRETARY
OFFICE OF ENVIRONMENTAL MANAGEMENT

FROM: BEVERLY A. COOK Beverly A Cook
ASSISTANT SECRETARY
OFFICE OF ENVIRONMENT, SAFETY AND HEALTH

SUBJECT: Designation of Initial Safety Analysis "Tool Box Codes"

Commitment 4.2.1.1 of the Department's Implementation Plan for Defense Nuclear Facilities Safety Board Recommendation 2002-1 is to "Identify the codes used for safety analysis to be part of the Safety Analysis Code Toolbox." The purpose of this memorandum is to document identification of the initial list of codes.

The Safety Analysis Software Group conducted a detailed survey and analysis to determine the codes that are widely used to support safety basis documentation. The results of that analysis are documented in a report titled, *Selection of Computer Codes for DOE Safety Analysis Applications,* dated August 2002. This report can be found in the Recommendation 2002-1 section of the Departmental Representative's web page at www.deprep.org. Based upon that report, the following six codes have been selected as the initial safety analysis toolbox codes:

- Fire Source Term Code: CFAST
- Leakpath Factor Code: MELCOR
- Chemical Release/Dispersion and Consequence Codes: ALOHA and EPI code
- Radiological Dispersion and Consequence Codes: MACCS2 and GENII

As stated in the Implementation Plan, additional work will be done to bring these codes into compliance with new software quality assurance requirements. Eventually these codes will be managed by a Central Registry that will be designated in August 2003.

I would like to acknowledge the support you and your staff have willingly provided in this area as we work to institutionalize the Department's software quality assurance program. If you have any questions concerning this matter, please call me or Ray Hardwick at (202) 586-0307.

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cc:
R. Card, US
D. Garman, EE-1
G. Staffo, EE-3C
R. Hardwick, EH-2
F. Russo, EH-3
P. Golan, EM-3
S. Johnson, EM-5
C. Smith, FE-1
C. Zamuda, FE-7
L. Brooks, NA-1
C. Przybylek, NA-1
J. Mangeno, NA-3.6
D. Crandall, NA-11
D. Beck, NA-12
K. Baker, NA-20
G. Rudy, NA-50
D. Miotla, NA-117
X. Ascanio, NA-124
W. Magwood, NE-1
R. Lange, NE-70
M. Chu, RW-1
R. Milner, RW-2E
R. Brown, RW-3
R. Orbach, SC-1
J. Decker, SC-2
M. Johnson, SC-3
L. Dever, SC-80
M. Whitaker, S-3.1
T. Wyka, S-3.1
I. Triay, CBFO
M. Gunn, CH
S. McCracken, FPO
D. Bergman-Tabbert, GJO
E. Sellers, ID & KCSO
R. Erickson, LASO
C. Yuan Soo Hoo, LSO
K. Carlson, NSO
G. Boyd, OR
B. Brumley, ORSO
R. Schepens, ORP
R. Warther, OH
D. Glenn, PSO
K. Klein, RL
E. Schmitt, RF
K. Boardman, SSO
J. Allison, SR
E. Wilmot, SRSO
A. Williams, WVO