

## UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D. C. 20555

CFER 9 4:01987

**MEMORANDUM FOR:** Sharon Root, Systems Coordinator Division of Waste Management

FROM:

John T. Greeves, Chief Engineering Branch Division of Waste Management

SUBJECT: DRAFT MICROCOMPUTER APPLICATIONS SOFTWARE DOCUMENTATION STANDARDS

In response to your request of 18 February 1987, the Engineering Branch has reviewed the document entitled "DRAFT MICROCOMPUTER APPLICATIONS SOFTWARE DOCUMENTATION STANDARDS." This document was transmitted by K.M. VanDuser (ITSB/IRM) memorandum to Office ADP Coordinators and dated 5 February 1987. Our comments on this draft standard are provided below.

The purpose of the document is to "provide standards to assists end users in developing appropriate documentation for applications which use NRC standard microcomputer software." It describes documentation requirements and provides several examples of documenting applications developed with dBASE III, LOTUS 1-2-3, IBM BASIC and other software packages used at the NRC. The technical content of the document is quite good. The examples appear to be carefully thought out and relevant. Nevertheless, we are not completely satisfied with the draft standard for the following reasons:

1. The standard should be promulgated as a guide rather than a requirement. It primarily deals with software applications rather than software itself (e.g., CROSSTALK command files rather than a stand-alone communications program). For this reason, one would expect that many (but not necessarily all) software applications that are subject to the proposed documentation standard would actually be "Individual Use" applications as defined in Draft NRC Bulletin 0904-5.

According to Draft NRC Bulletin 0904-5, Individual Use Applications are not subject to documentation requirements. Organization-Unique and Corporate Use Applications are subject to documentation requirements. The standard should carefully distinguish between the two and, in the case of Individual Use Applications, suggest that the standard is a guide rather than a requirement.

2. The document should recognize and, where appropriate, rely upon other software documentation standards. Some examples are:

NRC Regulations - 10 CFR 50, Appendix B, Part V (Instructions, Procedures, and Drawings); 10 CFR 50, Appendix K, Part II (Required Documentation).

NRC Documents - NUREG-0856 (Final Technical Position on Documentation of Computer Codes for High-Level Waste Management), June 1983.

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Other Agency Standards - Federal Information Processing Standards Publication Number 38 (Guidelines for Documentation of Computer Programs and Automated Data Systems), 15 February 1976; FIPS PUB64 (Guidelines for Documentation of Computer Programs and Automated Data Systems for the Initiation Phase), 1 August 1979; FIPS PUB105 (Guideline for Software Documentation Management), 6 June 1984; NBS Special Publication 500-73 (Computer Model Documentation Guide), January 1981.

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If you have questions regarding these comments, please contact John Voglewede of my staff on 42-74275.

Michael Tobar

John T. Greeves, Chief Engineering Branch Division of Waste Management

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Sharon Root, Systems Coordinator Division of Waste Management **MEMORANDUM FOR:** 

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DATE:

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