

FACILITIES MAINTENANCE AND ENGINEERING PROCEDURE		
Subject: COMPUTER PROGRAM ERROR REPORTING	FMPEP-P-0480	Rev. No. 0
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1.0 PURPOSE

To identify the actions to be taken when errors are discovered in computer programs used for engineering design and analysis.

2.0 GENERAL

This procedure applies to computer programs which are used in engineering design and analysis including programs operated on all classes of computers owned and leased by Science Applications International Corporation (SAIC) and at outside computer companies.

2.1 Program Errors

This procedure addresses errors caused by improper computer program functions and computer program coding.

2.2 System Malfunctions

The identification and notification of errors and corrective action resulting from malfunctions in computer hardware, operating systems, related software systems and communications systems is the responsibility of the entity which has operational control of the systems.

2.3 Classification of Program Error Severity

Errors shall be classified to indicate a degree of severity, according to these classes:

Class One: Program errors which have no effect on the validity of results for engineering calculations, or which cause runs to terminate abnormally.

Class Two: Program errors which allow a program to execute but give numbers which are obviously meaningless or conspicuously detectable such as absurd results.

Class Three: Program errors which produce wrong results, but which could be interpreted as valid results.

When it is questionable whether an error should be classified as Class Two or Three, the error shall be classified as Class Three.

3.0 PROCEDURE

3.1 Error Discovery

Users shall promptly notify the Manager of Engineering of each error detected in computer programs. The user shall also provide the supporting documentation related to the error detection.

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3.2 Error Analysis

The Manager of Engineering is responsible for analyzing errors in the computer program and classifying the errors into one of the three error classes that are identified in Section 2.3.

3.3 Error Notification

The Manager of Engineering is to prepare a Computer Program Error Notification form (Exhibit A) for Class Two and Class Three errors and transmits the error notifications to all Facilities Maintenance and Engineering (FME) personnel.

The Manager of Engineering shall determine whether to retain a program in operation or remove it from service when an error is reported. Error avoidance shall be described in the error notification form. When a Class Two or Class Three error is not readily avoidable, the program must be removed from service until the error is corrected.

3.4 Corrective Action

The Manager of Engineering shall inform the controlling organization of the computer program, in writing, of the errors found by the use of the computer program.

3.5 User Responsibility

Upon notification of an error, FME Personnel shall appropriately consider the effect of reported program errors on completed calculations, calculation in process, and future calculations.

If the reported error is not understood, the user shall obtain the necessary clarification of the error from the Manager of Engineering .

FME personnel shall inform the Manager of Engineering of the results of the review of calculations based on receipt of the Computer Program Error Notice.

FMEP-P-0480 Exhibits

Exhibit A – Computer Program Error Notification (2 pages)