

**Overview of**  
***USE OF INTEGRATED MODULES FOR BIOASSAY ANALYSIS (IMBA)***  
**(ORAUT-PROC-0002, Rev. 01)**

Workers at Department of Energy and Atomic Weapons Employer facilities have the potential to be exposed to an amount of radiation which must be estimated for claimants. An important tool to determine radiation doses to internal tissue and organs is the computer code or specialized computer program known as IMBA (Integrated Modules for Bioassay Analysis). This subject procedure, *Use of Integrated Modules for Bioassay Analysis (IMBA)* (ORAUT-PROC-0002), provides guidance in running the code. This procedure, with references to several other documents, describes only the mechanics of running IMBA software, and does not provide guidance on performing a dose estimate.

**SUMMARY OF FINDINGS RESULTING FROM THE TECHNICAL REVIEW**

Review of the procedure by the technical contractor for the Advisory Board on Radiation and Worker Health (the Board) produced the three findings summarized below:

*Finding #1:* The procedure lacks clear descriptions for the location of various functional buttons related to the IMBA program that are shown on the computer screen.

*Finding #2:* The procedure lacks sufficient guidance on evaluating results of bioassay calculations.

*Finding #3:* The procedure provides users with insufficient guidance in cases where professional judgment is required.

**RESOLUTION OF FINDINGS**

In response to the findings identified above, the National Institute for Occupational Safety and Health (NIOSH) stated that this procedure is intended as an introduction to the use of IMBA and provides sufficient detail so that a novice user can quickly and easily operate the computer code. After only a little experience, the user has no need for the additional specificity called for by the comments. In addition, NIOSH provides IMBA users with training in the use of the code.

The NIOSH explanation was accepted; all issues were resolved to the satisfaction of the Board.