

**OCRWM
AUDIT OBSERVER INQUIRY FORM**

Audit No. COAP-BSC-03-07 Sequence No. 1

Name (Observer) James Firth

Organization USURC

Requirement Reference
AP-SI.2Q, Rev. 1, ICUΦ, Section 5.5

Question/Concern:

The tolerance for accepting the results from the testing phase is quite variable and without a discernable reason for the variability. This can call into question whether software accepted using wide tolerances will adequately and correctly perform its intended functions. For example:
NWSYS V. 5.6.2: No ~~any~~ quantitative criteria were specified in advance and it was accepted with differences in the several percentage; GoldSim v. 6.03 used tolerances of 10%, Jutil 2Grid v. 1.6 allowed rounding errors, and Ashplume v. 1.4 LV used 1% as the accepted tolerance.

Response: The tolerance specified is dependent upon the solution method. Testing a numerical model with an analytical solution will have a much larger uncertainty than verifying data conversion.

The audit team reviewed this area as part of checklist question 12-3, "Determine if the software test documentation describes the task and criteria for accomplishing the validation of the software at the end of the development cycle." Several instances of the lack of adequate quantitative acceptance criteria have been identified by the audit team. These are being documented in a deficiency report.

Audit Team Leader: Melvin Hornsman 6-5-03

Acknowledgement of Receipt: JH Carter Date: 6-12-03
Observer Signature

**OCRWM
AUDIT OBSERVER INQUIRY FORM**

Audit No. EQAP-BSC-03-07 Sequence No. 2

Name (Observer) Ted CARTER/James Fieth

Organization USNRC

Requirement Reference
AP-SI.10 Section 5.2, AP-SI.20, QARD
AP-SI.19 section 5.3

Question/Concern:
Software is categorized as either Level A or Level B
(current procedures) or Level 1, Level 2, or Level 3 (previously).
Different procedures are used to qualify Level A and B
software. This represents a graded approach to the
quality assurance for software qualification, which
is not provided for in the QARD. DOE stated in the
QA meeting summary dated April 29, 2003 that DOE
will not be implementing a graded QA approach. Please
provide a justification for the graded approach used for

Response:
software qualification which does not appear to be in
accordance with the provisions in the QARD.

Response: DOE had indicated that QA Grading will not be performed at this time.
The situation identified in this inquiry is not an example of QA Grading.
The indication of Level A and Level B software represents a classification
and not an example of QA Grading. QA Grading means a reduction in QA controls
(not requirements) for lower graded items. QA controls include quality
control inspections, QA audits, and QA reviews.

The Level A and Level B classifications are only used to lessen the number
of documents to be prepared. Level A software requires a separate document
for each activity (e.g., RD, DD, ITP, etc.). Only one document is required
for all Level B software.

Audit Team Leader: Marlin Horneau 6-5-03

Acknowledgement of Receipt: T.H. Carter Date: 6-12-03
Observer Signature

**OCRWM
AUDIT OBSERVER INQUIRY FORM**

Audit No. QQAP-BSC-03-07 Sequence No. 3

Name (Observer) T. CARTER/R. WEBER

Organization NRC

Requirement Reference
QARD, Rev 13 — 1.2.2 Quality Assurance Management P.F.
2.2.7 Management Assessments P B.3.

Question/Concern:
Approximately 90 DRs and CARs have been identified in the last four years. Based on the initial review of these DRs/CARs by the observers, a potential pattern of ineffective corrective actions, along with examples of failure to follow procedures, was identified. Although the audit team was aware of these issues, the overall significance of these recurring deficiencies was not integrated into the QQAP-BSC-03-07 audit. Therefore it is requested that DOE provide, within 30 days, a detailed review and evaluation of the cumulative significance and impact of these deficiencies

Response:
and an assessment of the adequacy of the associated corrective actions and human performance considerations.

Response:

Audit Team Leader: Marlin Housman 6-11-03

Acknowledgement of Receipt: Thomas Webster for Date: 7/22/03
Observer Signature TEO CARTER