

SCALE Procedure for Discrepancy Reports

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Approvals:



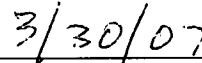
SCALE Project Leader



Date



Quality Program Manager, NSTD



Date

SCALE Procedure for Discrepancy Reports

1.0 PURPOSE

To describe a standardized operational procedure to control the use of the SCALE Discrepancy Report (SDR) to (1) identify a situation where the SCALE code system fails to perform according to the documentation, (2) indicate the impact to current and past users, and (3) recommend action to resolve and/or temporarily circumvent the discrepancy. The procedure outlined in this document complies with the Configuration Management Plan (CMP) for the SCALE code system which is controlled by the NSTD Nuclear Systems Analysis, Design, and Safety (NSADS) Group.

2.0 SCOPE

A SCALE Discrepancy Report should be filed whenever any SCALE program fails to perform according to its software documentation. This includes documentation errors.

3.0 DEFINITIONS

3.1 Discrepancy - The failure of software to perform according to its documentation. This may be due to an error in either the software or the documentation. A code failure or incorrect results are both examples of software discrepancies.

4.0 PROCEDURE

4.1 Discrepancy Identification (Part I)

4.1.1 SCALE users should notify the Code Manager or Project Leader of findings indicative of discrepancies, requesting if necessary, a software change be made to resolve the problem. Upon confirmation of the discrepancy, the Code Manager or SCALE user requests a SCALE SDR form from the Software Quality Assurance (SQA) Coordinator.

4.1.2 The SQA Coordinator assigns a sequence number to the SDR and enters it in the SDR log. Items on Part I of the SDR form are completed by the SQA Coordinator are described below:

4.1.2.1 **Report No. SDR** - Assign a sequence number "YY-NNN" to SDR. "YY" equals the last two digits of the current year and "NNN" will equal a number beginning with "001" and increasing by one each time a SDR is assigned. The complete sequence of numbering restarts at the beginning of each calendar year.

4.1.2.2 **Module** - Name of module or data file.

4.1.2.3 **Version** - The “**Current Version Number**” of an executable module may be located by browsing the SCALE QA Table. Search for the version number of the executable module to be modified. This number can be recognized by the format of X.Y or X.Y.Z (e.g., 4.4.0) and should be recorded in the space provided on the form. Version numbers do not apply for libraries (e.g., MIPLIB, SCALELIB, or MARSLIB) or production data files and should have an N/A recorded for that space.

4.1.2.4 Once steps 4.1.2.1 through 4.1.2.3 have been completed, the information is recorded in the SDR log and the SDR form is given to the requestor for the completion of Part I.

4.1.3 The requestor completes and signs Part I of the SDR, documenting: (1) the date the discrepancy occurred or was discovered, (2) a description of the discrepancy, and (3) the potential impact of the discrepancy on previous calculations.

4.1.4 The requestor marks any attachments with the SDR number on each page and checks the “Attachment” box.

4.2 **Discrepancy Evaluation (Part II)**

4.2.1 The Code Manager evaluates the reported discrepancy in terms of its impact and significance upon calculational results and provides recommended user action to avoid or alleviate the discrepancy. The Code Manager also has the option to refute the specified discrepancy.

4.2.2 The Code Manager marks any attachments with the SDR number on each page and checks the “Attachment” box.

4.3 **Approval for Corrective Action (Part III)**

4.3.1 The Project Leader indicates authorization or denial of approval for corrective action and signs Part III.

4.3.2 If approval is authorized, the Project Leader returns the SDR to the Code Manager.

4.3.3 If approval is denied, the Project Leader returns the SDR to the SQA Coordinator. Go to step 4.4.5.

4.4 **Discrepancy Resolution (Part IV)**

- 4.4.1 The Code Manager documents in Part IV the resolution of the discrepancy and the necessary corrective action before signing Part IV. The corrective action may be a proposed modification to the software or the documentation.
- 4.4.2 If the corrective action requires a SCALE configuration change (i.e., module or production data file revisions), the Code Manager must complete the appropriate form and attach a copy of the completed SDR to it. The software change forms are:
 - (a) SCALE Module Revision Report (MRR)
 - (b) SCALE Data Revision Report (DRR)

The revision report number is recorded on the SDR in the appropriate space.

- 4.4.3 If the corrective action only requires changes to the SCALE documentation, one copy of the revised documentation should be attached to the SDR, and another copy should be forwarded to the SCALE Manual reports specialist. The Code Manager marks any attachments with the SDR number on each page and checks the “Attachment” box.
- 4.4.4 The SDR is submitted to the Project Leader for signed approval of Part IV.
- 4.4.5 The SQA Coordinator documents completion of the SDR in the SDR log and files it in a binder labeled “SCALE Discrepancy Reports.”
- 4.4.6 The Project Leader ensures that RSICC and users are notified of corrective actions and their impact via e-mail notices and/or the SCALE Newsletter as deemed appropriate by the Project Leader.