SCALE Code Manager Procedure for Data Revision Reports

Prepared by
S. M. Bowman

Nuclear Systems Analysis, Design, and Safety (NSADS)
Nuclear Science and Technology Division (NSTD)
Oak Ridge National Laboratory

Date Revised: March 30, 2007

Approvals:

Stephen M Bowman — 3/30/07

SCALE Project Leader — **Date**

Thomas Roger Jones — 3/30/07

Quality Program Manager, NSTD — **Date**

SCALE Code Manager Procedure for Data Revision Reports

1.0 PURPOSE

To describe the methods to be used by the Code Managers of the SCALE code system for updating, testing and documenting changes to SCALE production datasets. 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

This procedure will be applied by the designated Code Manager any time corrections or enhancements are to be made to any of the production data files in the SCALE code system.

3.0 PROCEDURE

3.1 A Data Revision Report (DRR) must be completed any time a change is made to a production data file in SCALE, whether it is a correction or an enhancement. Obtain a DRR form from the Software Quality Assurance (SQA) Coordinator. If there is a discrepancy, a SCALE Discrepancy Report (SDR) form is also required. Refer to the SCALE CMP for the definition of a discrepancy and the procedure to follow.

3.2 Complete Part I of the DRR and submit it to the Project Leader for approval in Part II.

3.3 After approval by the Project Leader in Part II, create a new data file with the new or revised data that is to replace the current production data file.

3.4 Create at least one test case to verify the changes in the new data file. If possible, run the test case for both the current production data file and the new data file.

3.5 Complete documentation. Identify and attach a copy of any SDR that is associated with these changes. The documentation should be written on separate pages marked with the DRR number and attached to the DRR. The following items should be clearly identified:

- 3.5.1 Description of changes - tell what was changed and why
- 3.5.2 Description of testing - describe each test case and its purpose
- 3.5.3 Verification report - tell how the results of each test case verifies the changes made
- 3.5.4 Input data for each test case - a listing of each test case input file.

3.6 Complete Part III of the DRR form:

3.6.1 Mark all items that are attached. Include all that are required. Mark "N/A" if an item is not applicable.
3.6.2 Answer the Yes/No questions.
3.6.3 If "Yes," then attach the updated documentation and/or sample input data.
3.6.4 List the name of the new data file(s).
3.6.5 List the origin of the new data or the reason for modifying the current production data files.
3.6.6 Identify any effect these changes would have on previous calculations.

3.7 Submit all documentation attached to the DRR form to the Project Leader for preliminary review. Note any other MRRs or DRRs that need to be implemented concurrently or other unusual circumstances involving the implementation or final testing. The materials are then forwarded to the Technical Reviewer.

3.8 The Technical Reviewer reviews all documents to determine:
3.8.1 the adequacy of the verification and/or validation
3.8.2 the adequacy of the documentation and its consistency with the existing system documentation.

3.9 If any of these areas are inadequate in the reviewer's judgment, he may request additional information, documentation, or test cases from the Code Manager. When the technical review (Part IV) is completed, the Technical Reviewer returns all materials to the Project Leader for approval.

3.10 The Project Leader designates the test cases to be performed by the SQA Coordinator after implementation and signs Part V of the DRR. All materials are forwarded to the SQA Coordinator for the completion of Part VI of the DRR.