

TITLE

REVIEW OF CALCULATIONS, EVALUATIONS AND OTHER
IMPLEMENTING DOCUMENTS

NUMBER

DAP-5

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0	W. Hendrix for W. Hendrix	8/30/85	FA Hendrix	9/13/85	FA Hendrix	10/4/85
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<div data-bbox="295 1715 669 1796" data-label="Text"> 8607170029 860711 PDR ADOCK 05000445 A PDR </div> <div data-bbox="954 1625 1221 1727" data-label="Text"> CONTROLLED COPY NO. 73 </div>						

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1.0 PURPOSE

This procedure defines the methods for the review of calculations, evaluations, and other implementing documents.

2.0 SCOPE

This procedure applies to Review of Implementing Design Documents such as calculations and evaluations used in the design of the systems addressed by the Design Adequacy Program

Implementing documents will be reviewed against the appropriate design criteria. Calculations and evaluations will be reviewed for the adequacy of the applied methodology as well as accuracy of the implementation of the methodology.

This procedure does not address the review of output documents (drawings and specifications). The review of output documents is addressed in DAP-6.

3.0 DEFINITIONS AND RESPONSIBILITIES

3.1 Definitions

3.1.1 Implementing Documents

The documents which provide for implementation of the design criteria such as Flow Diagrams and Instrument Control Diagrams.

3.1.2 Criterion

A criterion is any statement of a performance, design feature, or design requirement which a system, structure, or component must meet in order to be

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capable of performing its design function or to be in compliance with a project requirement or commitment.

3.2 Responsibilities

3.2.1 Discipline Coordinator

The Discipline Coordinator is responsible for selecting the type and number of implementing documents, calculations, and evaluations in each area to be reviewed. The Discipline Coordinator is responsible for assigning Reviewers.

3.2.2 Reviewer

The Reviewer is responsible for completing reviews of assigned review topics in accordance with this procedure, using appropriate checklists, ensuring that the check is accurate, and checking that work done under his (or her) direction is correct.

3.2.3 Assigned Personnel

Assigned personnel perform verification activities under the direction of the Reviewer.

3.2.4 Checker

Checkers are responsible for verifying the accuracy of the Reviewers or Assigned Personnel's work.

4.0 INSTRUCTION

4.1 Identification of Reviewer

For each review topic listed in the description of the DAP self-initiated evaluation contained in the CPRT Program Plan, the appropriate Discipline Coordinator shall select an individual who shall function as the Reviewer for that topic and shall be responsible for the completion of the checklists associated with that topic (i.e., the Design Review Summary and Design Review Evaluation described in DAP 4 as Attachments B and C respectively or alternative checklists developed in accordance with DAP 4). The identified Reviewer shall meet the qualification requirements of DAP-15. The Discipline Coordinator may act as the Reviewer, provided that he meets the qualification requirements of DAP-15. Assigned personnel working under the direction of a Reviewer shall have been trained in this procedure and shall have received any technical training deemed appropriate by the Reviewer, but need not meet the qualification requirements applicable to the Reviewer. If the Reviewer determines that such technical training is necessary, the requirement of the training, its scope, and its completion shall be documented.

4.2 Customization of Checklist Forms and Identification of Specific Documents For Review

The Reviewer shall review the Design Review Evaluation checklist forms applicable to the review topic that have been released for use by the Discipline Coordinator. The Reviewer shall determine whether the forms require supplementation or other modification as provided for in DAP-4 (including the supplementary review items contained in Attachments D and E of DAP-4). He may make whatever changes he deems appropriate to customize the checklist form for a particular review topic.

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The Reviewer shall select the items for review in accordance with DAP 21. The Discipline Coordinator may authorize others to complete the activities required by DAP-21 under the direction of the Reviewer. Those specific items identified to be reviewed, shall be the latest revision of the applicable documents. If the applicable document revision has an approval date prior to April 1, 1985, it shall be used for review.

Otherwise, the current revision and the latest revision with an approval date prior to April 1, 1985 shall be used. If multiple revisions occurred after April 1, 1985, each of those revisions shall be used. The use of these previous revisions, however, shall be limited as described in Section 4.4.

The Reviewer or Assigned Personnel under the direction of the Reviewer, shall enter the appropriate references for the selected documents in the "Reference" column of the checklist. The reference shall be sufficiently complete to allow another person to identify the specific portion of the document being reviewed. For example, the identification number and renewal pages of the calculation, as well as the calculation page revision number and date, should be used. The reference information may be entered into the checklist form in the course of the review.

4.3 Completion of Checklist

Each review of implementing documents shall be conducted by using the checklists developed in accordance with DAP-4 as customized in accordance with Section 4.2. The purpose of the review shall be to determine whether individual design documents appropriately include the applicable design criteria. The Reviewer or Assigned Personnel shall examine all items on the checklist and indicate whether each item was found to be satisfactory, unsatisfactory, not checked, or not applicable. "Not Checked" or "NC" may be used when a standard checklist form is used to perform a limited review of a given subject such that an applicable area was excluded from the review scope. "Not Applicable" or "NA" may be used when an items on a standard checklist form is not applicable

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to the subject being reviewed. The Reviewer or Assigned Personnel shall also indicate the basis for determining the verification conclusion (e.g., visual inspection of document, field walkdown, calculation review, and independent calculation) and the acceptance criteria (e.g., agreement with alternate calculations within X%, agreement between documents X and Y, etc.) if not otherwise included in the checklist form.

The Reviewer or Assigned Personnel shall indicate the homogeneous design activity number applicable to each checklist item in the "Comments" column. When all checklist items have the same HDA number a straight line may be drawn through the "Comments" section to indicate a common HDA number. The "Comments" column may be used for any other comments about an attribute, its implementation, or its verification.

4.4 Current Document Revisions After March 31, 1985

As noted above, special review considerations are applicable to documents for which the current revision of the document is dated later than March 31, 1985. In such cases the following steps shall be completed by the Reviewer or Assigned Personnel:

- o The last revision prior to April 1, 1985, shall be obtained.
- o All revisions between the revision obtained in the previous step and the current revision shall be identified and obtained.
- o The Reviewer or Assigned Personnel shall determine the differences among the revisions and the causes for those revisions.
- o A review shall be conducted using the current revision of the document and the appropriate design review evaluation checklist completed.
- o Appropriate design review evaluation checklists shall be completed to document the review against the review

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attributes of those aspects of the revision of the documents that were changed in the latest revision. The "Sat/Unsat/NA/NC" column shall be marked as appropriate. Items that are "Unsat" in the previous revisions shall be processed in accordance with 4.5 (below) in spite of any correction that may have been made in the current revision.

4.5 Processing Unsatisfactory Items

Items found to be unsatisfactory shall be noted on the checklist and shall also be separately compiled and processed in accordance with the procedures outlined in DAP-2. The DIR number assigned to each unsatisfactory item shall be listed in the "Comments" column.

4.6 Approval

If the checklist is completed by Assigned Personnel, the "Comments" column shall be annotated with the name or initials of the person who performed the verification. The Reviewer shall assure himself of the adequacy of the completed checklist and sign the "Reviewer" space.

After a checklist is completed and signed by the Reviewer, the Discipline Coordinator shall designate a Checker.

The Checker shall verify the accuracy of the checklist by reviewing at least 10 percent of the checklist items or a minimum of 5 items. After all comments or questions are resolved with the Reviewer, the Checker shall sign the checklist in the "Checker" space and return to the Discipline Coordinator. The checklist shall be approved by the Discipline Coordinator, who shall sign the "Approved By" line of the checklist sheet. If the Discipline Coordinator is also the Reviewer he shall sign both spaces.

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5.0 DOCUMENTATION

Each completed checklist shall be forwarded to the DAP Manager for filing in accordance with DAP-14.