



**QUALITY IMPLEMENTING PROCEDURE
HEADQUARTERS-OFFICE OF GEOLOGIC REPOSITORIES (HQ-OGR)**

QIP No. 3.2 Page 1 of 7
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TITLE Technical Reviews		PREPARED BY: <i>D. Brown</i>
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1.0 Purpose

The purpose of this procedure is to establish the requirements for assuring that regulatory and programmatic requirements have been properly addressed in technical documents associated with structures, systems, components and activities which are important to safety or waste isolation and to OGR programmatic objectives.

2.0 Scope

This procedure applies to all technical reviews conducted under the direction of Headquarters-Office of Geologic Repositories (HQ-OGR).

3.0 References

- 3.1 OCRWM Quality Assurance Management Policies and Requirements Document DOE/RW-0032.
- 3.2 HQ-OGR Quality Assurance Plan - OGR/B-3.
- 3.3 NRC Review Plan, "Quality Assurance Programs for Site Characterization of High Level Nuclear Waste Repositories."
- 3.4 ANSI/ASME NQA-1, 1986 "Quality Assurance Program Requirements for Nuclear Facilities", Basic Requirement #3 and Supplement 3S-1.
- 3.5 QIP 18.4 Internal Audits.
- 3.6 QIP 17.0 Quality Assurance Records
- 3.7 QIP 2.1 Indoctrination and Training
- 3.8 QIP 3.0 Design Review
- 3.9 QIP 3.1 Peer Review
- 3.10 Program Baseline Procedures Notebook-OGR/B-1

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4.0 General

4.1 References 3.1, 3.2, 3.3, and 3.4 require that reviews be performed to verify the technical applicability, correctness, adequacy and completeness of technical documents.

4.2 Definitions

4.2.1 Technical Review - A documented single or multi-discipline review performed by qualified personnel who are independent of the original work performed. Independent technical reviews are analyses and evaluations that assess the technical applicability, correctness, adequacy and completeness of technical documents originated by the Project Offices, contractors or other Program participants.

4.2.2 Technical Document - A document of technical subject matter rather than financial, property controls, management or contractual information. Technical documents include:

- a) Topical reports, letter reports or technical memoranda.
- b) Technical data for programmatic decisions.
- c) Computer language and software documentation.
- d) Position papers, studies and assessments.
- e) Technical planning documents and activity plans.
- f) Description and requirements documents.

5.0 Responsibilities

5.1 The Associate Director - OGR is responsible for assuring that technical reviews are conducted whenever appropriate and that they are properly documented.

5.2 The applicable OGR Division Director is responsible for review of and concurrence with the results of reviews on technical documents as required by this procedure.

5.3 The applicable Branch Chief is responsible for coordinating, directing and reporting the results of Technical reviews.

5.4 Technical document reviewers are responsible for conducting the review assigned to them in a timely and professional manner.

5.5 The OGR QA Manager is responsible for conducting audits of technical review activities in accordance with the requirements of reference 3.5.

6.0 Procedure

- 6.1 The applicable Branch Chief will initiate the process when a completed technical document, originated by the Project Offices, contractors or other Geologic Repository Program participant, requires a technical review.
 - 6.1.1 Technical reviews performed by HQ-OGR are in addition to the reviews of verifications performed by the originator of the technical document.
 - 6.1.2 Technical documents listed in Section 4.2.2 will receive a technical review in accordance with this QIP if there is no other documented and approved procedure governing the document's review by HQ-OGR.
- 6.2 If the review of the technical document is not governed by another procedure, the Branch Chief will initiate a Memo to the group or individuals selected to review the technical document. The number of reviewers and the disciplines involved in the review will be determined by the Branch Chief based on the complexity of the document to be reviewed. The Memo shall reference the title, document number, revision and date of the technical document and, when applicable, reference the letter transmitting the document to HQ-OGR. The Branch Chief shall use the Memo as a tracking mechanism to assure that all reviewers respond to the request for review.
- 6.3 The Memo, the technical document to be reviewed and any additional instructions shall be forwarded to the reviewers.
- 6.4 The Branch Chief shall ensure that the reviewers are independent of but have demonstrated expertise in the subject area equivalent to that of those who performed the work being reviewed. Expertise can be demonstrated by the reviewer's job position and other education and experience. The Branch Chief shall verify that the HQ-OGR reviewers have received documented indoctrination and training in accordance with Reference 3.7 or, in the case of contractors, a similar training program.
- 6.5 The technical review may either be conducted as a joint meeting of all the applicable disciplines or as a separate review where each member independently reviews the document and submits any comments to the Branch Chief.
- 6.6. Comments should be made if a reviewer believes that the document contains information which is not in accordance with the HQ-OGR instructions or with the pre-determined regulatory or programmatic requirements.

- 6.7 Comments shall be legible, concise and specific in nature. Document references should be used whenever appropriate. Suggested wording or clarifications should be made, if possible.
- 6.8 Comments may be documented by any of the following methods:
- 6.8.1 The comments can be noted on the Technical Review Comment and Resolution Sheet (Appendix A).
 - 6.8.2 Comments sheets, with adequate instructions, supplied by the originator of the document, such as, the Project Office or a contractor.
 - 6.8.3 Any other documented and approved method, for example, review of documents controlled by the Program Baseline Procedures Notebook-OGR/B-1 (Reference 3.10).
- 6.9 All comments, generated in accordance with Section 6.8.1, shall be forwarded to the Branch Chief, or his designee, who will review the comments for clarity and appropriateness. The commenter shall be contacted to clarify and comments.
- 6.10 The Branch Chief, with concurrence of the Division Director, shall transmit the accumulated comments with a cover letter to the originator of the document for comment resolution.
- 6.11 The originator is required to address each comment. Any comment which is not totally incorporated into the technical document shall be reviewed with the Branch Chief and commenter. Disputes concerning interpretation shall be elevated to the next higher level of management until resolution is obtained.
- 6.12 When the comments have been incorporated or otherwise resolved, the technical document shall be resubmitted to the Branch Chief for verification.
- 6.13 Changes to documents that originally received a technical review shall undergo another review when submitted to HQ-OGR.
- 6.14 A Technical Review Check List (Appendix B) shall be initiated by the Branch Chief to document the technical review process.

7.0 Records

- 7.1 Technical Review records are lifetime records and as such will be maintained in accordance with reference 3.6.
- 7.1.1 As a minimum, the following records shall be maintained:

- a) The originator's transmittal letter and the technical document to be reviewed.
- b) The Memo to the technical reviewers
- c) Technical Review Check List
- d) Technical Review Comments and Resolution Sheet
- e) Correspondence to and from the originator of the technical document.

8.0 Appendices

- 8.1 Appendix A Technical Review Comments and Resolution Sheet
- 8.2 Appendix B Technical Review Checklist

APPENDIX A

Headquarters - Office of Geologic Repositories

Technical Review Comments and Resolution

Date _____

Page _____

Document Title _____

Document No., Revision & Date _____

Reviewer _____

Organization _____

Page/Paragraph

Comments & Rationale

Proposed Revision

Date _____ Signed _____
Reviewer

Date _____ Signed _____
Branch Chief

Resolution

Date _____ Signed _____
Reviewer

Date _____ Signed _____
Branch Chief

APPENDIX B

Headquarters - Office of Geologic Repositories

Technical Review Check List

Date _____

Document Title _____
 Document Number _____
 Document Date/Revision _____
 Project _____

Branch Chief, or designee, shall initial and date when completed:

- _____ Date _____ Memo to technical reviewers with instructions.
- _____ Date _____ Review personnel identified, qualifications reviewed and indoctrination and training verified.
- _____ Date _____ All reference material and data available for review.
- _____ Date _____ All written reviewer comments have been received.
- _____ Date _____ Comments have been reviewed by Branch Chief.
- _____ Date _____ Technical review letter and documents sent to originator with concurrence of the Division Director.
- _____ Date _____ Revised document resubmitted to Branch Chief with comments addressed and another review performed.
- _____ Date _____ Technical review documents maintained.

The above technical review steps have been carried out in compliance with Quality Implementing Procedure QIP 3.2.

Signed _____
Branch Chief

Date _____