



Department of Energy

Richland Operations Office
WM DOCKET CONTROL
CENTER
Richland, Washington 99352

86-QSB-78

'86 SEP 26 AM 11:52

WM Record File

WM Project

10

Docket No.

PDR

LPDR

General Manager
Rockwell Hanford Operations
Richland, Washington

Distribution:

DHedges

JLinch

(Return to WM, 623-SS)

J Kennedy

MDelligatti

RDM JSBilham

G. Ankrum

Sac

Dear Sir:

QUALITY ASSURANCE AUDIT 8604 ROCKWELL PEER REVIEW RESPONSE LETTER 30851, R1
DATED JULY 1, 1986

The proposed corrective actions submitted for the seven audit findings have been evaluated with the following results:

- 8604-1 The proposed corrective action is acceptable.
- 8604-2 The proposed corrective action is acceptable provided the justification for a single reviewer as specified in response - 8604-2c is documented and processed in accordance with RHO-QA-MA-3, Chapter 3.0, Section 3.6.5.
- 8604-3 The proposed corrective action is acceptable.
- 8604-4 The proposed corrective action is acceptable. The previous procedural requirement to generate a list in advance of documents being prepared requiring peer review was not a realistic requirement. Peer review requirements are established during the preparation or review of the document or activity when it is determined that some or all parts require interpretation or judgement in completing the analysis, release or use of the data or document.
- 8604-5 The proposed corrective action is acceptable.
- 8604-6 The proposed corrective action is acceptable.
- 8604-7 The proposed corrective action is acceptable.

The Action Plan submitted with Rockwell Letter R86-3266 on submittal of procedures and developing a listing of the documents that will require subsequent review and further documentation is considered an acceptable method of purging the document base and assuring that all reference documents that require further processing will be identified, tracked and corrected as required.

8610140182 860910
PDR WASTE
WM-10

PDR

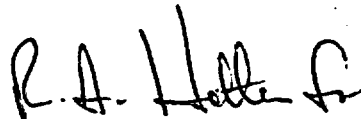
2047

SEP 19 1986

As was stated in the DOE peer review Stop Work Order issued April 24, 1986, upon completion of the activities necessary to close audit findings 8604-1, 8604-2 and 8604-4, the approval by DOE-RL of procedure RHO-QA-MA-17, 03-102, and evidence that the required training has been completed, the DOE Stop Work Order on peer review will be rescinded. Completion of this remedial action by Rockwell only addresses peer review, and does not satisfy all of the conditions that must be met to allow lifting of Stop Work SWO-86-004.

All of the audit findings will subsequently be verified by DOE BWI Division prior to formal closeout.

Sincerely,

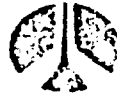


O. L. Olson, Director
Basalt Waste Isolation Division

BWI:BMG
46H6.E1

cc: D. C. Gibbs, Rockwell
D. Hedges, NRC, w/Rockwell letters
J. P. Knight, DOE HQ, w/Rockwell letters
D. C. Newton, DOE HQ, w/Rockwell letters
E. Sulek, Weston, w/Rockwell letters

Rockwell Hanford Operations
P.O. Box 800
Richland, WA 99352



Rockwell
International

7/1/86
BM Greger

July 1, 1986

In reply, refer to letter 30851, R1

Mr. O. L. Olson, Director
Basalt Waste Isolation Division
Department of Energy
Richland Operations Office
Richland, Washington 99352

Dear Mr. Olson:

QUALITY ASSURANCE AUDIT 8604 BASALT WASTE
ISOLATION PROJECT APRIL 1-16, 1986
(Contract DE-AC06-77RL01030)

Reference: Letter, June 5, 1986, R. P. Saget to General Manager,
Rockwell Hanford Operations, same subject

Responses to the subject audit findings are attached for your consideration.

With regard to the additional requirement stipulated in reference letter, a senior level evaluation of the effect of reported peer review control deficiencies on the validity and credibility of work performed under the deficient controls will be initiated. Mr. D. F. Hanlen is preparing an action plan that identifies the scope of and a schedule for completing this effort. This plan will be submitted for your review and concurrence by July 14, 1986.

Please advise D. F. Hanlen on 376-7878 if you require additional information.

Very truly yours,

D. C. Gibbs, Director
Basalt Waste Isolation Project

DCG/DEH/ds

Att:

cc: J. H. Anttonen - DOE-RL
K. W. Bracken - DOE-RL
P. E. Rasmussen - DOE-RL

RECEIVED

JUL 02 1986

DOE-RL/BWI DCC



QUALITY AUDIT FINDING

9. QAF Control No.
8604-01 page 1 of 2

1. TO: Name
L. R. Fitch

Title

2. Location
Richland, Washington

3. Reference/Requirements
ANSI/ASME NQA-1, 1983 Criterion 2 and NRC Review Plan

4. Audit Or Surveillance Report No.
DOE/BWID 8604

5. Description

Personnel performing or responsible for peer review have not been trained in the requirements or responsibilities of the peer review process.

Note: The specific RHO procedure was circulated as required reading for orientation; however, this does not define process requirements for individuals involved, or provide training.

6. Lead Auditor (Signature)

7. Issue Date

4/21/86

8. Response Due Date

5/21/86

10. Auditee Corrective Action Commitment

Root Cause: The Basalt Waste Isolation Project (RHO) has not had a training activity nor a formal, documented training program.

Action: The project is instituting a training program which will be in concert with and a prerequisite for initiation of the Stop Work Recovery Process. The revised procedure for peer review is in review now and will be available also as a precursor to the recovery process. Formal training for personnel subject to the requirements of the procedure will be a prerequisite for further activity associated with the peer review process.

(continued on Page 2)

NOTE: Action Shall Address Root Cause and Include Measures to Prevent Recurrence

11. Responsible Action Manager (Signature)

12. Date

6/27/86

13. Action Completion Due Date

10/1/86

ACTION VERIFIED

14. Lead Auditor (Signature)

15. Date

17. Final Distribution

ORIGINAL-Audit/Surveillance Report File

1--Addressee

2--

3--

16. Final Review and Approval (QAF Closed)

Mgr./Branch Chief, Cognizant Branch

Date

Action: (continued)

The "Procedure for Peer Review," RHO-QA-MA-17, 03-102, is scheduled for submittal to DOE-RL for approval by August 1, 1986. The program for training of personnel in the application of the procedure will be in place on August 25, 1986 at which time training will be conducted as required.



QUALITY AUDIT FINDING

9. QAF Control No.
8604-2 page 1 of 4

1. TO: Name
L. R. Fitch

2. Location
Richland, Washington

3. Reference/Requirements
ANSI/ASME NQA-1, 1983 and NRC Review Plan, Criterion 3.

4. Audit Or Surveillance Report No.
DOE/BWID 8604

5. Description
See Attached Sheet.

6. Lead Auditor (Signature)

7. Issue Date

8. Response Due Date

10. Auditee Corrective Action Commitment

See Attached Sheets.

NOTE: Action Shall Address Root Cause and Include Measures to Prevent Recurrence

11. Responsible Action Manager (Signature)

12. Date

13. Action Completion Due Date

ACTION VERIFIED

14. Lead Auditor (Signature)

15. Date

17. Final Distribution

16. Final Review and Approval (QAF Closed)

ORIGINAL-Audit/Surveillance Report File

1--Addressee

2--

3--

Mgr./Branch Chief, Cognizant Branch

Date

During the audit of the peer review process the following list of Control System elements were evaluated with the listed Failure Indicators observed:

3.3 Design Verification

- a. RHO failed to have a peer review performed on a document that technically meets the criteria for peer review.
- b. Failure to have a geologist peer review a document that required review by a geologist.
- c. Failure to utilize more than one Peer Reviewer per discipline.
- d. Failure of responsible managers to document the scope of the peer reviews.
- e. Failure to document review comments and their resolutions that were inputted on drafts and incorporated in the final documents without record of the review incorporated in the peer review documentation package.
- f. Use of individuals for peer review who were not independent of the documents' preparation.

3.5 Design Interface Control

- a. Failure to identify the purpose or scope of the required peer review to an interfacing organization.

3.6 Design Documentation and Records.

- a. Finding incomplete design review record document packages in BRMC. (Complete packages were not submitted by the responsible managers.)

3.3 Design Verification (continued)

- f. Use of individuals for peer review who were not independent of the documents' preparation.

Root Cause: The qualifications for peer reviewers are not defined in the existing procedure as required by the recommended criteria.

Action: Same as for Finding 8604-2(a).

3.5 Design Interface Control

- a. Failure to identify the purpose or scope of the required peer review to an interfacing organization.

Root Cause: Failure to follow procedure reflecting inadequate training in requirements at all levels in the cognizant organization.

Action: Same as for Finding 8604-2(a).

3.6 Design Documentation and Records

- a. Finding incomplete design review record document packaged in BRMC.

Root Cause: Failure to follow procedure, reflecting inadequate training in requirements at all levels of the cognizant organization.

Action: Same as for Finding 8604-2(a).

*Note: A commitment regarding retrofit of the revised peer review process will be made following completion of an assessment of the scope of the task, now being initiated.



QUALITY AUDIT FINDING

9. OAF Control No.
8604-3 page 1 of 1

1. TO: Name Title
L. R. Fitch

2. Location
Richland, Washington

3. Reference/Requirements
ANSI/ASME NQA-1, 1983. Criterion 4.

4. Audit Or Surveillance Report No.
DOE/BWID 8604

5. Description

In the control of procurement documents the responsible design organization failed to document the scope of the peer review requested of the supplier. (Specific review scope provided to the reviewer by telephone and not subsequently documented.)

6. Lead Auditor (Signature)

7. Issue Date

8. Response Due Date

10. Auditee Corrective Action Commitment

Root Cause: Failure to follow procedure, reflecting inadequate training in requirements at all levels of the cognizant organization.

Action: Same as Finding 8604-2(a).

NOTE: Action Shall Address Root Cause and Include Measures to Prevent Recurrence

11. Responsible Action Manager (Signature)

12. Date

13. Action Completion Due Date

ACTION VERIFIED

14. Lead Auditor (Signature)

15. Date

17. Final Distribution

ORIGINAL-Audit/Surveillance Report File

1--Addressee

2--

3--

16. Final Review and Approval (OAF Closed)

Mgr./Branch Chief, Cognizant Branch

Date



QUALITY AUDIT FINDING

9. QAF Control No.

8604-4

page 1 of 2

1. TO: Name

L. R. Fitch

Title

2. Location

Richland, Washington

3. Reference/Requirements

ANSI/ASME NQA-1 1983 and NRC Review Plan. Criterion 5.

4. Audit Or Surveillance Report No.

DOE/BWID 8604

5. Description

See Attached Sheet.

6. Lead Auditor (Signature)

[Signature]

7. Issue Date

4/21/86

8. Response Due Date

5/21/86

10. Auditee Corrective Action Commitment

See Attached Sheets.

NOTE: Action Shall Address Root Cause and Include Measures to Prevent Recurrence

11. Responsible Action Manager (Signature)

[Signature]

12. Date

6/27/86

13. Action Completion Due Date

10/1/86

ACTION VERIFIED

14. Lead Auditor (Signature)

15. Date

17. Final Distribution

ORIGINAL-Audit/Surveillance Report File

1--Addressee

2--

3--

16. Final Review and Approval (QAF Closed)

Mgr./Branch Chief, Cognizant Branch

Date

During the peer review audit the following control elements of Criterion 5 were evaluated with the listed failure indicators observed:

5.1 Description of Activities:

- a. The procedure fails to identify the scope of the peer reviewers' activities and responsibilities.
- b. The procedure fails to define the reviewer selection process.
- c. The procedure does not prescribe conduct of the peer review process or for the use of a group (more than one reviewer per discipline as specified in the NRC Review Plan) or provide alternate provisions.

5.2 Compliance

- a. Failure to implement the procedural requirement to prepare a list of documents that require peer review.
- b. A review of six documents subjected to peer review and their peer review packages did not comply with procedure section 5(3) in that, the scope, extent and purpose was not specified, the selection process was not described and review comments and dispositions were not included.

During the peer review audit the following control elements of Criterion 5 were evaluated with the listed failure indicators observed:

5.1 Description of Activities

- a. The procedure fails to identify the scope of the peer reviewers' activities and responsibilities.

Root Cause: The existing procedure predates current requirements and had not been upgraded.

Action: The revised procedure requires that the scope of the document or design review be specified as part of the agenda for the peer review.

- b. The procedure fails to define the reviewer selection process.

Root Cause: Selection of a qualified reviewer as well as assignment to any task has always been the responsibility of the cognizant manager and will continue to be.

Action: The revised peer review procedure has a more stringent requirement for the documentation and certification of peer reviewer independence and qualification. Each cognizant manager is required to document qualifications of peer reviewers as part of the document review record.

- c. The procedure does not prescribe conduct of the peer review process or for the use of a group (more than one reviewer per discipline as specified in the Nuclear Regulatory Commission's [NRC's] Plan) or provide alternate provisions.

Root Cause: It has been a historical practice to provide peer review of a document or design using the expertise of one individual when it was felt that a broader cross section would not lend to the credibility of the review. This judgment call has been and should continue to be management decision.

* Action: See response to Finding 86⁶⁴40-2(c).

5.2 Compliance

- a. Failure to implement the procedural requirements to prepare a list of documents that require peer review.

✓ Root Cause: As outlined in the NRC Review Plan, a peer review is required only after the process of independent technical review finds that "interpretation or judgment" must be used to verify or validate a document or design. At such times, a peer review is deemed necessary. It is unrealistic to establish a list of documents or designs for peer review when a technical review may be all that is required.

5.2 Compliance (continued)

Action: The revised peer review procedure specifies the conditions for implementing the peer review process.

- b. A review of six documents subjected to peer review, and their peer review packages, did not comply with procedure section 5(3) in that, the scope, extent, and purpose were not specified, the selection was not described, and review comments and dispositions were not included.

Root Cause: The personnel who participated in the past peer review activities were not adequately trained in the requirements for licensability. Although a thorough and scientific method was used to verify design documents from the technical point of view, training to the quality requirements for licensing was not conducted.

Action: The revised procedure for peer review is much more detailed and the Basalt Waste Isolation Project (BWIP) Training Department will provide qualified reviewer and ancillary personnel training in the use of the peer review process.



QUALITY AUDIT FINDING

9. QAF Control No.
8604-5 page 1 of 2

1. TO: Name	Title
L. R. Fitch	

2. Locallon
Richland, Washington

3. Reference/Requirements

ANSI/ASME NQA-1, 1983 and NRC Review Plan, Criterion 17.

4. Audit Or Surveillance Report No.
DOE/BWID 8604

5. Description
Control Subsystem 17.1, designation of documents or document types destined to become records. Two failure indicators as follows were evaluated.

- a. Failure of personnel to be aware of which documents become Quality Records.
- b. Failure to designate documents or document types as records.

During interviews with responsible managers and peer reviewers it was determined that they were not aware or implementing the requirements for records of the peer review process.

6. Lead Auditor (Signature)

7. Issue Date

8. Response Due Date

10. Auditee Corrective Action Commitment

See page 2, attached

NOTE: Action Shall Address Root Cause and Include Measures to Prevent Recurrence

11. Responsible Action Manager (Signature)

12 Date

13. Action Completion Due Date

ACTION VERIFIED

14. Lead Auditor (Signature)

15. Date

17. Final Distribution

ORIGINAL-Audio/Surveillance Report File

1--Addressee

2--

3-

16. Final Review and Approval (QAF Closed)

Mgr./Branch Chief, Cognizant Branch

Date _____

Block 10 continuation

a. Failure of personnel to be aware of which documents become Quality Records.

Root Cause: Project indoctrination of personnel has not included such information.

Action: Procedures for the revised project manual RHO-BW-MA-17 are required to address records generated by use of the procedure. The revised peer review procedure includes this section.

b. Failure to designate documents or document types as records.

Root Cause: The existing peer review procedure is inadequate in this area.

Action: The revised peer review procedure will specify what documents comprise the peer review package as quality assurance records.



QUALITY AUDIT FINDING

9. QAF Control No.

8604-6 page 1 of 1

1. TO: Name

L. R. Fitch

Title

2. Location

Richland, Washington

3. Reference/Requirements

ANSI/ASME, NQA-1, 1983 and NRC Review Plan, Criterion 17.

4. Audit Or Surveillance Report No.

DOE/BWID 8604

5. Description

Control Subsystem 17.5, traceability from record to item(s) or activity(ies) to which it applies. Has one failure indicator as follows:

- a. Inability to assemble a complete peer review package. An evaluation of documents subjected to peer review indicated the packages to be incomplete as they did not include review comments and their resolution, selection process documentation or review scopes.

6. Lead Auditor (Signature)

7. Issue Date

8. Response Due Date

9/2/86

5/21/86

10. Auditee Corrective Action Commitment

Root Cause: See Cause and Response in Finding 8604-4, 5.2(b).

Action: See Action Response in Finding 8604-4, 5.2(b).

NOTE: Action Shall Address Root Cause and Include Measures to Prevent Recurrence

11. Responsible Action Manager (Signature)

12. Date

13. Action Completion Due Date

6/27/86

10/1/86

ACTION VERIFIED

14. Lead Auditor (Signature)

15. Date

17. Final Distribution

16. Final Review and Approval (QAF Closed)

ORIGINAL-Audit/Surveillance Report File

1--Addressee

2--

3--

Mgr./Branch Chief, Cognizant Branch

Date



QUALITY AUDIT FINDING

9. QAF Control No.
8604-7

page 1 of 2

1. TO: Name
L. R. Fitch

Title

2. Location
Richland, Washington

3. Reference/Requirements

ANSI/ASME, NQA-1, 1983 and NRC Review Plan, Criterion 18.

4. Audit Or Surveillance Report No.

DOE/BWID 8604

5. Description

Control Subsystem 18.1, Audit Scheduling has two failure indicators that were evaluated. The indicators are:

- a. Failure to schedule audit of organizations performing peer review.
- b. Failure to perform scheduled audits in organizations/activities involved.

A review of audits and surveillances scheduled and performed in the organizations performing peer review indicates that failures occurred in both indicators as no auditing had been scheduled/ performed and no surveillances had been conducted since 1984.

6. Lead Auditor (Signature)

7. Issue Date

8. Response Due Date

10. Auditee Corrective Action Commitment

- a. Root Cause: Inadvertant omission.

Action: An evaluation is ongoing by the Basalt Waste Isolation Quality Assurance Auditing Group to determine the full extent of this error. The results of this evaluation should identify those activities which have gone on the longest without being audited. After the project has been restarted, the audit schedule for the remainder of Fiscal Year 1987 will reflect priority

NOTE: Action Shall Address Root Cause and Include Measures to Prevent Recurrence (See Attached Sheet)

11. Responsible Action Manager (Signature)

12. Date

13. Action Completion Due Date

14. Lead Auditor (Signature)

15. Date

17. Final Distribution

ORIGINAL-Audit/Surveillance Report File

1--Addressee

2--

3--

16. Final Review and Approval (QAF Closed)

Mgr./Branch Chief, Cognizant Branch

Date

5. a. Failure to schedule audit of organization performing peer review.

Action: (continued)

attention for activities not audited within the last 12 months.

Action to prevent recurrence: The impact and significance of the DOE project-wide Stop Work and the task outlined in the corrective action commitment should be sufficient actions to prevent recurrence.

Completion of Actions: The evaluation will be completed by October 1, 1986, and the schedule will be completed by November 1, 1986.

- b. Failure to perform scheduled audits in organizations/activities involved.

The response is as in "a" above.

Rockwell Hanford Operations
P.O. Box 800
Richland, WA 99352



Rockwell
International

In reply,

Letter REC-3266

John W. Williams
Please make copy & initiate
action to review & comment
on this attached proposed
action plan
John
P.

July 25, 1986

Mr. O. L. Olson, Director
Basalt Waste Isolation Division
Department of Energy
Richland Operations Office
Richland, Washington 99352

Dear Mr. Olson:

BASALT WASTE ISOLATION PROJECT
QUALITY ASSURANCE AUDIT 8604
APRIL 1-16, 1986
(Contract DE-AC06-77RL01030)

Reference: Letter, July 1, 1986, D. C. Gibbs to O. L. Olson,
same subject

The subject audit identified several deficiencies which place in question the acceptability of project peer review results. The reference letter identified an action plan to address this problem. The action plan is enclosed for your consideration.

Item 1 of the action plan, incorporation of documentation requirements into project review procedures, has been initiated and the revised procedures are scheduled for submittal to the Department of Energy-Richland Operations Office for approval by September 30, 1986.

Item 2 of the action plan, identification of documents now in active project use which require evaluation, has also been initiated. This list of documents is scheduled to be completed by August 29, 1986. The list will be updated on a monthly basis during the documentation upgrade effort.

Item 3 of the action plan, assessment of the review process documentation, will be initiated upon approval of this action plan. As Step 3 continues, a catalog and file of revised/approved reference documents will be developed. It is expected as corollary that an increasing number of the reference documents identified for reassessment will already be in the approved files. In seven to nine months, the number of flawed reference packages identified in this upgrade effort is expected to be near zero and fully manageable.

Too late to help on
interchange 24 & 25

RECEIVED

JUL 29 1986

DOE-RL/BWI DCC



Rockwell
International

Mr. O. L. Olson

Page 2

July 25, 1986

If you require additional information, please contact Mr. D. F. Hanlen
on 376-7878.

Very truly yours,

D. C. Gibbs, Director
Basalt Waste Isolation Project

DCG/DFH/hls

Enc.

cc: J. H. Anttonen - DOE-RL
K. W. Bracken - DOE-RL
P. E. Rasmussen - DOE-RL

PLAN OF ACTION

1. Insert into the project review procedures the requirement to document the acceptability of past project reviews conducted on each reference identified in the parent documents* being reviewed.
2. Identify the active project documents now in place* (such as the Environmental Assessment) which must be confirmed to have had an adequate review.
3. From each parent* document (1 and 2, above), extract the list of reference documents to be assessed.
 - o Initiate an evaluation of the documentation for the review conducted on each of the references using upgraded, approved review procedures.
 - o Assess the status/validity of references not subjected to project review.
 - o Determine the extent of any required review documentation upgrade to meet present review standards.
 - o Identify the nature of the upgrade requirements
 - Administrative
 - Technical
 - o Identify those reference documents whose status or review upgrade action involves real or potential technical defect in the parent document.
 - o Advise the review team, or the cognizant (i.e., author) organization for the parent document of the results of the evaluation. The review team or cognizant organization will:
 - Assess the impact of the real or potential technical defect
 - Fix the parent document
 - Correct any identified administrative deficiencies in the review process.
 - Flag unresolved defects in the document and in the Project Open Items Tracking file
 - Correct parent document references as necessary
 - Document additional review as necessary to validate the review process and the parent document status.

* Parent document is that document from which a family of documents is derived or can be identified for a specified purpose