

YMP-USGS INTERIM CHANGE NOTICE TO THE QUALITY ASSURANCE PROGRAM PLAN
YMP-USGS-QAPP-01,R5 Page xiic of xii

WBS #: 1.2.3.1
QA: QA

ICN Number: ICN-3 Applies to YMP-USGS-QAPP-01, Rev. 5

Title: U.S. Geological Survey Quality Assurance Program Plan

REQUIRED CHANGES:

<u>Para.</u>	<u>Changed to</u>
2.2.1	Insert "environmental monitoring" after "construction" in line four. Change "PQM" to "Quality Assurance Division Director."
3.1.1.1	After the second sentence insert "Environmental monitoring studies are governed by environmental monitoring plans for the determination of appropriate quality-affecting activities."
4.6	Delete paragraph.
5.3	In first line replace "instruction" with "procedures."
15.1.4.3	Delete paragraph.
15.5	Delete paragraph.
16.2	Delete paragraph.
18.1.2.2	Change entire paragraph to "Applicable elements of the QA Program for organizations on the AVL shall be audited on a triennial basis when supplemented by annual evaluations."
18.1.2.3	Delete paragraph.

Effective Date: May 21, 1991 Supersedes ICN No. N/A

[Signature] 5/10/91
YMP-USGS Quality Assurance Manager Date

[Signature] 5/12/91
Technical Project Officer Date

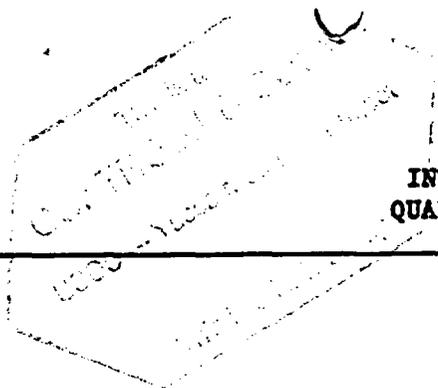
[Signature] 05-14-91
Chief, Office of Regional Geology Date

[Signature] 5/15/91
Assistant Chief Hydrologist for Program Coordination and Technical Support Date

[Signature] 5/15/91
Assistant Director for Engineering Geology Date

[Signature] 5/17/91
Project Quality Manager DOE Yucca Mountain Project Date

YMP-USGS
INTERIM CHANGE NOTICE TO THE
QUALITY ASSURANCE PROGRAM PLAN



WBS #: 1.2.3.1

QA: QA

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ICN Number: ICN-4

Applies to YMP-USGS-QAPP-01, Rev. 5

Title: U.S. Geological Survey Quality Assurance Program Plan

REQUIRED CHANGES:

- | <u>Para.</u> | <u>Changed to</u> |
|--------------|--|
| 2.1.6 | Replace "QA level" with "QA control" in the second paragraph, replace "QA levels" with "QA controls" in the third paragraph, and replace "QA level" with "QA control" in the fourth paragraph. |
| 2.2.1 | Replace "QA level" with "QA control" in the second, third and fifth paragraphs. |
| 2.2.4 | Replace " <u>Quality Assurance Level</u> " with " <u>Quality Assurance Controls.</u> " |
| 2.2.5.1 | Replace "QUALITY ASSURANCE LEVEL" with "QUALITY ASSURANCE CONTROLS;" replace "QA level" with "QA control" in the first and second paragraphs; and replace "QA levels" with "QA controls" and "YMPO" with "the YMP-USGS QA Manager" in the third paragraph. |
| 2.2.5.2 | Delete Section. |
| 2.2.5.3 | Delete Section. |
| 2.2.5.4 | Delete Section. |

Effective Date; May 21, 1991

Supersedes ICN No. N/A

[Signature] 5/10/91
YMP-USGS Quality Assurance Manager Date

[Signature] 5/12/91
Technical Project Officer Date

[Signature] 05-14-91
Chief, Office of Regional Geology Date

[Signature] 5/15/91
Assistant Chief Hydrologist for Program Coordination and Technical Support Date

[Signature] 5/15/91
Assistant Director for Engineering Geology Date

[Signature] 5/17/91
Project Quality Manager Date
DOE Yucca Mountain Project

YMP-USGS
INTERIM CHANGE NOTICE TO THE
QUALITY ASSURANCE PROGRAM PLAN
CONTINUATION SHEET

Page 2 of 2

ICN Number: ICN-4

Applies to YMP-USGS-QAPP-01, Rev. 5

Title: U.S. Geological Survey Quality Assurance Program Plan

REQUIRED CHANGES:

<u>Para.</u>	<u>Changed to</u>
3.1.1.1	Replace "QA level" with "QA control" in third paragraph.
3.1.1.2	Delete "QA levels or" in the last paragraph.
3.1.2	Replace "QA level" with "QA control" in first paragraph.
3.1.3	Replace " <u>Quality Assurance Levels</u> " with " <u>Quality Assurance Controls.</u> "
3.1.3.1	Replace "LEVEL ASSIGNMENT" with "CONTROL ASSIGNMENT," replace "QA levels" with "QA controls" in the first two paragraphs, and replace "QA level" with "QA control" in the third paragraph.
3.1.3.2	Replace "QA levels" with "QA controls."
3.1.8	Replace "QA level" with "QA control."
3.3.1	Replace "perform QA Level I and II analyses" with "support quality-affecting activities."
4.1	Replace last sentence with "To the extent necessary, procurement documents of the USGS shall require that the subtier contractors provide QA controls."
4.3	Replace "QUALITY ASSURANCE LEVEL I ACTIVITIES" with "QUALITY-AFFECTING ACTIVITIES."
4.3.3	Replace second sentence with "QAPPs and documents of subcontractors for purchases supporting quality-affecting activities shall be reviewed and approved by the USGS QA Office or its delegate."
5.4	Replace "QA Level I and II activities." with "quality-affecting activities."
8.4	Replace "QA level" with "QA controls."

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WBS #: 1.2.3.1
QA: QA

ICN Number: ICN-5

Applies to YMP-USGS-QAPP-01, Rev. 5

Title: U.S. Geological Survey Quality Assurance Program Plan

REQUIRED CHANGES: The following editorial changes are designated due to programmatic title changes. No implementation changes are affected.

<u>Para.</u>	<u>Changed to</u>
I.4.3 f)	Change "Project Quality Manager (PQM)" to "Quality Assurance Division Director."
1.2.2	Change "Yucca Mountain Project Office (YMPO) Project Quality Manager (PQM)" to "Quality Assurance Division Director."
2.1	Change "Project Quality Manager" to "Quality Assurance Division Director."
2.4.2	Change "PQM" to "Quality Assurance Division Director."
3.1.4.2	Change "PQM" to "Quality Assurance Division Director."
5.4	Change "PQM" to "Quality Assurance Division Director." Change "SAIC/T&MSS Project QA Department Manager" to "YMPO Quality Assurance Division."
15.1.4.2 5th Bullet	Change "PQM" to "Quality Assurance Division Director."
18.1.1.2	Change "SAIC/T&MSS Project QA Department (QA Verification Division Manager)" to "YMPO Quality Assurance Division."

Effective Date: May 21, 1991

Supersedes ICN No. N/A

[Signature] 5/10/91
YMP-USGS Quality Assurance Manager Date

[Signature] 5/12/91
Technical Project Officer Date

N/A
Chief, Office of Regional Geology Date

N/A
Assistant Chief Hydrologist for Program Coordination and Technical Support Date

N/A
Assistant Director for Engineering Geology Date

N/A
Project Quality Manager DOE Yucca Mountain Project Date

YMP-USGS
INTERIM CHANGE NOTICE TO THE
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WBS #: 1.2.3.1
QA: QA

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ICN Number: ICN-6

Applies to YMP-USGS-QAPP-01, Rev. 5

Title: U.S. Geological Survey Quality Assurance Program Plan

REQUIRED CHANGES:

Para. Changed to

Section 17 The entire Section 17, "Quality Assurance Records," should be changed to read:

17.0 GENERAL RECORDS REQUIREMENTS

The quality assurance (QA) records program for the USGS shall be defined, implemented, and enforced in accordance with written procedures, instructions, or other documentation. These documents describe the integrated set of activities required for creating, identifying, collecting, processing, organizing, distributing, storing, preserving, and retrieving of quality assurance records. These documents identify responsibilities of the Quality Assurance organization and other organizations.

Various regulatory agencies have requirements concerning records that are within the scope of this document. The most stringent requirements shall be used to determine final dispositions.

Effective Date: October 4, 1991

Supersedes ICN No. N/A

James May 9/5/91
YMP-USGS Quality Assurance Date
Manager

Larry R. H... 9/03/91
Technical Project Officer Date

Nicholas V. Reynolds 09-12-91
Chief, Office of Regional Date
Geology

Russell J. Israel 9/19/91
Assistant Chief Hydrologist Date
for Program Coordination
and Technical Support

Engine H. Reeborn Jr. 9-19-91
Assistant Director for Date
Engineering Geology

Colin... 10/4/91
Project Quality Manager Date
DOE Yucca Mountain Project

YMP-USGS
INTERIM CHANGE NOTICE TO THE
QUALITY ASSURANCE PROGRAM PLAN

CONTINUATION SHEET

Page 2 of 5

ICN Number: ICN-6

Applies to YMP-USGS-QAPP-01, Rev. 5

REQUIRED CHANGES (Continued):

Para. Changed to

(Section 17, continued)

17.1 USGS RECORDS SYSTEM

A record system or systems has been established by the USGS and is consistent with the schedule for accomplishing work activities. The records management activities to be performed by the USGS, during the processing of QA records, are detailed in the YMP-USGS Management Procedures Manual and the corresponding USGS procedures.

Records shall be distributed, handled, and controlled in accordance with these written procedures.

17.2 RECORD DEFINITION

Quality assurance procedures and instructions define minimum QA records generated as a result of implementation. The term records as used throughout this section, is to be interpreted as QA Records. QA Records include: (1) Individual documents that have been executed, completed, approved, and authenticated by all required signatures, and that furnish evidence of the quality and completeness of data (including raw data), and activities affecting quality; (2) documents prepared and maintained to demonstrate implementation of QA programs (e.g., audit, surveillance, and inspection reports); (3) procurement documents; (4) other documents, such as plans, correspondence, documentation of telecons, specifications, technical data, books, maps, papers, photographs, and data sheets; (5) magnetic media; and (6) other materials that provide data and document quality, regardless of the physical form or characteristic.

Documents that are to become QA Records are considered QA Records upon completion and authentication by all required signatures. A complete QA Record is a document that will receive no more entries and whose revision would be subject to a change control process.

17.3 RECORD GENERATION, COLLECTION, AND PROCESSING

The applicable design specifications, procurement documents, implementing procedures, operational procedures, or other documents shall specify the records to be generated, supplied, or maintained by or for the YMPO. Requirements and responsibilities for record transmittal, distribution, retrieval, retention, maintenance, and disposition of QA records shall be established and documented.

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ICN Number: ICN-6

Applies to YMP-USGS-QAPP-01, Rev. 5

REQUIRED CHANGES (Continued):

Para. Changed to

(Section 17, Para. 17.3, continued)

Documents designated to become records shall be legible, identifiable, accurate, complete, reproducible, microfilmable, and appropriate to the work accomplished. Documents shall be considered valid records only if stamped, initialed, or signed and dated by authorized personnel, or otherwise authenticated in accordance with approved procedures. These records may be originals or reproduced copies. Authentication may take the form of a statement by the responsible individual or organization. Handwritten signatures are not required if the document is clearly identified as a statement by a reporting individual or organization.

17.4 RECEIPT OF RECORDS

The USGS shall designate a person or organization to be responsible for receiving the records. The designee shall be responsible for organizing and implementing a system of receipt control of records in accordance with approved procedures. The individual or organization responsible for receiving records shall provide protection from damage, deterioration, or loss during the time that the records are in their possession. The receipt-control system shall be structured to permit a current and accurate assessment of the status of records. As a minimum, the receipt control system shall include the following:

- o A method for designating the required records.
- o A method for identifying the records received.
- o Procedures for receipt and inspection of incoming records.
- o A method for submittal of completed records to the permanent storage facility without unnecessary delay.

17.5 RECORD IDENTIFICATION

Records or indexing systems, or both, shall provide sufficient information to permit identification between the record and the items or activities to which it applies. The records shall be indexed, and the indexing system or systems shall include, as a minimum, the location of the record within the record system or systems.

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ICN Number: ICN-6Applies to YMP-USGS-QAPP-01, Rev. 5

REQUIRED CHANGES (Continued):

Para. Changed to

(Section 17, continued)

17.6 RECORDS STORAGE

Upon record initiation and prior to final completion and authentication, measures shall be taken by the record source to protect the integrity of the record. Records are controlled from time of completion through the time of submittal to a permanent storage facility. The Project Central Records Facility (CRF) shall be the permanent storage facility for Project records. Storage, as defined by NQA-1, is the sole responsibility of the CRF.

Upon shipment to the USGS Local Records Center, and prior to and during shipment to the Project Central Records Facility, records shall be stored in locations that meet the requirements of applicable standards. Records maintained by the USGS at their facility or other locations (on an interim or other basis) shall be accessible to the YMPO or its designated alternate. The USGS provides temporary storage of records while processing for submittal to the CRF, which at a minimum records shall be stored in a one-hour fire rated container or in dual facilities. The container shall bear a UL label (or equivalent) certifying one-hour fire protection or be certified by a person competent in the technical field of fire protection. Temporary storage shall not exceed two years. For storage requirements that will exceed two years, records shall be stored in either dual storage or an NQA-1, Supplement 17S-1 compliant single storage facility until returned to the LRC for processing and submittal to the CRF.

Records shall be stored to preclude deterioration of the records. The following requirements shall apply:

- o Provisions shall be made in the storage arrangement to prevent damage from moisture, temperature, and pressure.
- o Records shall be firmly attached in binders or placed in folders or envelopes for storage in steel file cabinets or on shelving in containers.
- o Provisions shall be made for special processed records (e.g. radiographs, photographs, negatives, microfilm, magnetic material, etc.) to prevent damage from excessive light, stacking, electromagnetic fields, temperatures, and humidity.

Measures shall be established to preclude the entry of unauthorized personnel in the storage area. A list shall be maintained designating those personnel who shall have access to the files. These measures shall guard against larceny and vandalism. Measures also shall be taken to provide for replacement, restoration, or substitution of lost or damaged records.

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Page 5 of 5

ICN Number: ICN-6

Applies to YMP-USGS-QAPP-01, Rev. 5

REQUIRED CHANGES (Continued):

Para. Changed to

17.7 RECORDS CLASSIFICATION

All YMP quality assurance records are classified as lifetime records and they are required to be retained for the life of the Project.

17.8 CORRECTED RECORDS

Records may be corrected in accordance with written procedures that provide for appropriate review or approval by the originating organization or person. The correction shall include the date and the identification of the person authorized to issue such correction.

**YMP-USGS
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QUALITY ASSURANCE PROGRAM DESCRIPTION**

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WBS #: 1.2.3.1
QA: QA
Page 1 of 8

ICN Number: ICN-7

Applies to YMP-USGS-QAPP-01, Rev. 5

TITLE: U.S. Geological Survey Quality Assurance Program Plan

REQUIRED CHANGES:

Para. Changed to

See attached for changes to Approval Sheet, ~~Policy Statement~~, Introduction and Section 1.
EHR for JD 10/7/91

Effective Date: October 15, 1991

Supersedes ICN No. N/A

[Signature] 10/1/91
YMP-USGS Quality Assurance Date
Manager

[Signature] 10/01/91
Chief, Yucca Mountain Project Date
Branch

[Signature] 10/2/91
Assistant Chief Hydrologist Date
for Program Coordination
and Technical Support

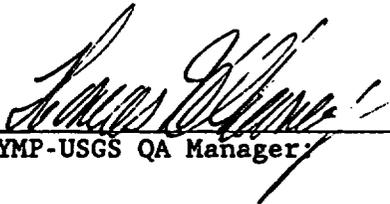
[Signature] 10/4/91
Assistant Director for Date
Engineering Geology
[Signature] 10/14/91
Director, Yucca Mountain Quality Date
Assurance Division

U.S. GEOLOGICAL SURVEY
QUALITY ASSURANCE PROGRAM PLAN
FOR
YUCCA MOUNTAIN PROJECT

Effective Date 10/15/91

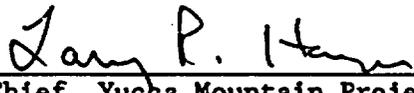
Revision 5 of this QAPP has been in effect since 5-3-89.

This signature page has been revised to reflect an organizational change.



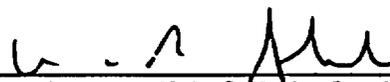
YMP-USGS QA Manager:

10/11/91
Date



Chief, Yucca Mountain Project Branch:

10/01/91
Date



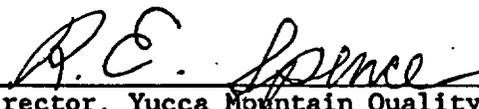
Assistant Chief Hydrologist for Program
Coordination and Technical Support

10/07/91
Date



USGS Assistant Director For Engineering
Geology:

10/04/91
Date



Director, Yucca Mountain Quality Assurance
Division.

10/14/91
Date

QUALITY ASSURANCE PROGRAM PLAN

YMP-USGS QUALITY ASSURANCE PROGRAM PLAN
INTRODUCTION

The U.S. Geological Survey (USGS) has lead responsibility for conducting earth science investigations in the Yucca Mountain Project (YMP). The USGS is responsible for site characterization activities including climatology, geology, hydrology, and paleohydrology. The USGS acts as the lead technical participant for the site characterization drilling activities and provides assistance to other YMP participants for areas of specialized USGS expertise. The USGS has no repository design responsibilities, although some technical data collected by the USGS and its sub-contractors will be used by other participants as design input.

This Quality Assurance Program Plan (QAPP) describes how the USGS will satisfy the quality assurance requirements of the YMP. This QAPP specifies an assemblage of quality assurance controls that are in compliance with ANSI/ASME NQA-1 and its supplements, applicable YMP-USGS QA and management requirements, and appropriate parts of the Office of Civilian Radioactive Waste Management Quality Assurance Requirements Document (QARD).

This QAPP delineates the YMP-USGS organization as it relates to the fulfillment of its YMP Quality Assurance responsibilities. The QAPP is organized in a manner similar to ANSI/ASME NQA-1 with 18 sections and, as appropriate, supplements. Each section is comparable to the corresponding NQA-1 section.

QUALITY ASSURANCE PROGRAM PLAN

1.0 ORGANIZATION

1.1 General

This section describes organizational responsibilities of the USGS for the YMP and identifies organizational interfaces for YMP-USGS work that support a quality assurance and technical program that meets the requirements of NQA-1 for achievement of quality in all activities. The QAPP is based on an important quality principle that each person is responsible for the achievement of quality in the work the person performs. The Quality Assurance (QA) Program provides for such achievement of quality as well as verification of that achievement. The line organization has responsibility for the achievement of quality. The QA organization has the responsibility to provide assurance to senior line management of the line organization's achievement through verification of quality. This is accomplished through the conduct of overview activities such as audits, surveillances, reviews, and assessments.

1.2 YMP-USGS Responsibilities

The YMP-USGS is a participating organization in the Yucca Mountain Site Characterization Project, including the environmental monitoring program. The YMP Branch of the USGS Water Resources Division (WRD) provides administrative and budget management support and oversight for all YMP activities within the YMP-USGS scope of work. The technical program is conducted within the Hydrologic Investigation Program (HIP) and the Geologic Studies Program (GSP), and through written agreements with other organizations including the USGS Geologic Division; the U.S. Bureau of Reclamation; Lawrence Berkeley Laboratories (LBL); University of Nevada, Reno; and others. These written agreements specify how the YMP-USGS QA Program will be addressed by those organizations. Specific activities performed by the YMP-USGS are derived from the YMP Work Breakdown Structure (WBS).

It is the responsibility of the Chief, YMP Branch, to ensure that appropriate QA requirements and procedural controls are implemented for the YMP-USGS scope of work in order to provide confidence that the YMP will not cause undue risk to either the health and safety of the public or of the workers associated with the geologic repository facilities.

1.3 YMP-USGS Organization

The Water Resources Division (WRD), USGS, has been assigned the responsibility for the overall management and implementation of the USGS earth sciences support to the YMP. This responsibility is housed in the YMP Branch under the Assistant Chief Hydrologist for Program Coordination and Technical Support (ACH/PC&TS). The YMP Branch will also provide for support from other organizational units of the USGS or outside organizations through the use of written agreements.

The YMP-USGS QA organization ultimately reports to the Assistant Director of Engineering Geology, independent of the WRD line organizations. This functional relationship has been established to ensure the QA organization reports to a management level that provides the appropriate authority and organizational freedom,

QUALITY ASSURANCE PROGRAM PLAN

including sufficient independence from cost and schedule considerations, to fulfill its responsibilities. The responsibilities of these various organizations are as described in Section 1.4 below.

The YMP-USGS QA Office functions are those of assuring that an appropriate QA program is established and executed effectively, and of verifying that requirements have been performed correctly by checking, auditing, conducting surveillances, and otherwise monitoring activities that affect quality. The USGS may delegate to others, such as contractors, agents, or consultants, the work of establishing and executing the QA Program, or any part thereof, but the USGS shall retain the responsibility for the QA Program.

1.4 Organizational Duties and Responsibilities

The organizational structure, program responsibilities, levels of authority, and lines of communication of the USGS staff performing work on the YMP are described below. All organization and authority presented herein is YMP-USGS Project-specific and represents program relationships established to implement YMP activities. Where there are conflicts or disputes involving differences of opinion among YMP-USGS personnel, they will, as necessary, be elevated through the organizational hierarchy described in this section. The organization of the USGS with respect to the YMP-USGS and QA is shown in Figure 1.

1.4.1 Director, USGS: The Director is responsible for the overall direction of the USGS activities. The Director has delegated YMP-USGS QA program responsibilities to the Assistant Director for Engineering Geology. This management function includes responsibility for the YMP-USGS QA Program, including final USGS resolution of conflicts and disputes involving quality arising from differences of opinion between YMP-USGS QA Office personnel and technical/administrative personnel.

1.4.2 Quality Assurance (QA) Manager, YMP-USGS: The QA Manager directs the development and verification of the YMP-USGS QA Program, and in this regard reports to the Assistant Director for Engineering Geology. The QA Manager interfaces with the Chief, YMPB and technical personnel on QA matters, as necessary. The basic responsibilities of the overall QA organization are development of the QA Program, verification that YMP-USGS activities are conducted in accordance with governing documents, and implementation of specific QA Office requirements. In this capacity, the QA Manager has the responsibility to:

- a) Develop, review, and approve the YMP-USGS QA Program Plan and the YMP-USGS implementing procedures;
- b) Maintain liaison with DOE Yucca Mountain Site Characterization Project Office (YMPO) management to assure adequate compliance with the YMP QA Program;
- c) Provide and direct QA support for the YMP-USGS;
- d) Identify quality problems, provide or review solutions to those problems, and verify implementation of solutions.

QUALITY ASSURANCE PROGRAM PLAN

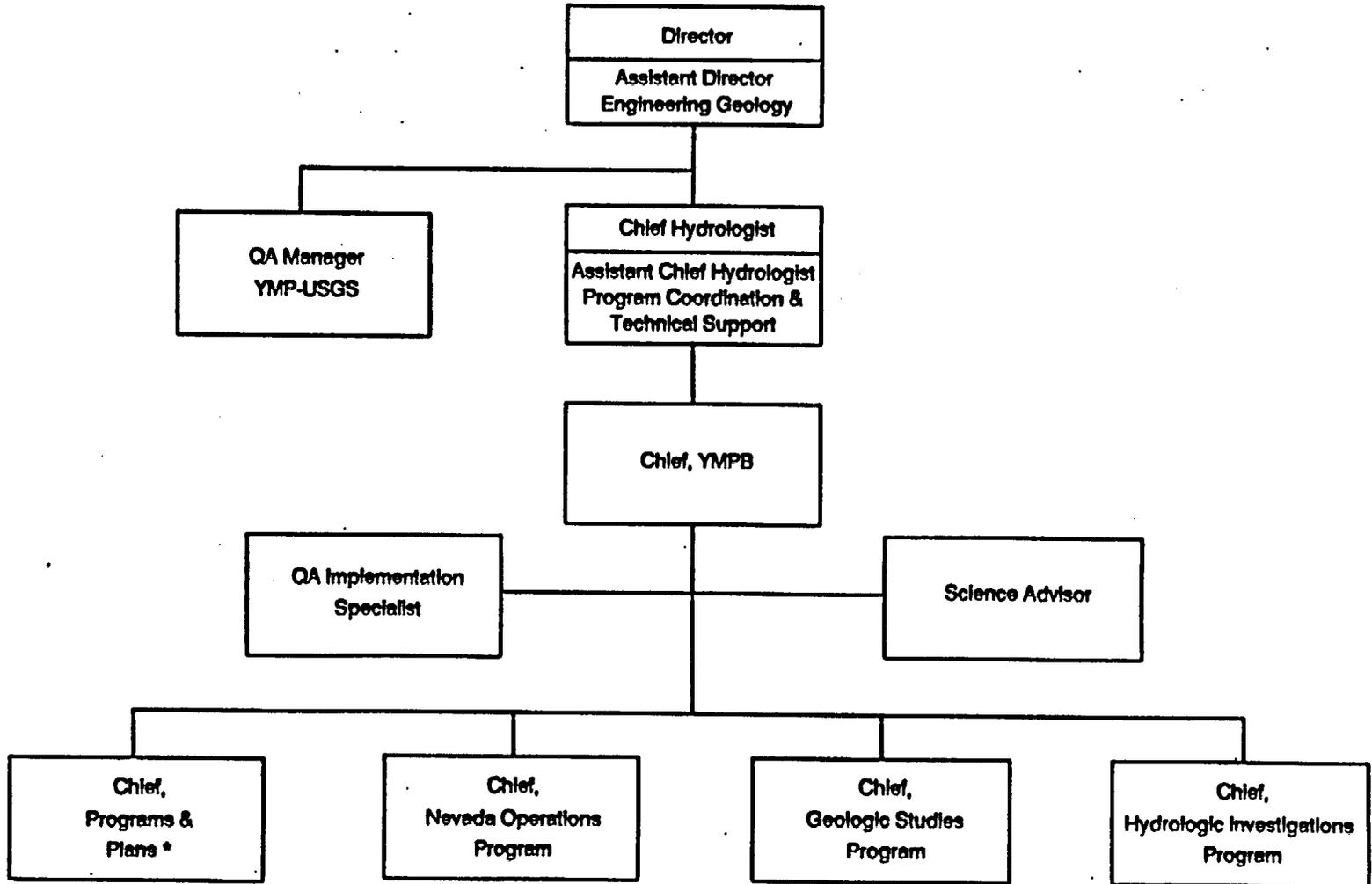
- e) Assure unsatisfactory conditions are properly controlled and, if necessary, stop work that does not meet QA standards;
- f) Verify the adequacy and effectiveness of quality assurance implementation through the conduct of audits, surveillances, reviews, and trend analysis; and
- g) Resolve conflicts and disputes between QA personnel and others.

1.4.3 Chief, Hydrologist, Water Resource Division (WRD): The Chief Hydrologist has overall responsibility for managing the WRD technical program. The YMP-USGS responsibilities have been delegated to the Assistant Chief Hydrologist for Program Coordination and Technical Support (ACH/PC&TS). The ACH/PC&TS provides management oversight for the YMPB activities.

1.4.4 Chief, YMP Branch (YMPB): This position is also referenced as the Technical Project Officer (TPO). The Chief, YMPB reports to the ACH/PC&TS, WRD and has been delegated direct management responsibility for the YMP-USGS technical program. The Chief, YMPB responsibilities include YMP-USGS line management, programmatic, and budgetary responsibility for technical and administrative USGS and contractor personnel assigned to the YMP, including responsibility for the implementation of the YMP-USGS QA Program. The Chief, YMPB responsibilities include but are not limited to the following:

- a) Planning and directing work activities;
- b) Complying with quality requirements imposed by quality program documents;
- c) Satisfying staff resource needs, cost, and schedule objectives, and deliverable requirements;
- d) Approving and implementing the YMP-USGS QAPP and the YMP-USGS QA program implementing procedures;
- e) Implementing the YMP procedures as they apply to the YMP-USGS scope of work;
- f) Implementing corrective actions for deficiencies identified within YMP-USGS quality program;
- g) Providing periodic assessment regarding the adequacy and effectiveness of the YMP-USGS quality program;
- h) Approving and implementing Stop Work Order; and
- i) Planning and directing the YMP-USGS training program.

**Organizational Structure
Yucca Mountain Project Branch**



* Also Serves as Associate Branch Chief

Figure 1. Organizational Chart

QUALITY ASSURANCE PROGRAM PLAN

1.4.5 QA Implementation Specialist, YMPB: This position reports to the Chief, YMPB and interprets QA requirements of the USGS and directs and provides guidance to ensure the effective and appropriate implementation of the quality assurance program, as developed by the YMP-USGS QA Manager's Office. The QA Implementation Specialist also provides liaison with the YMPB, the QA Office, the GSP and HIP Chiefs and the DOE regarding quality assurance implementation.

1.4.6 Science Advisor (SA): The SA reports to the Chief, YMPB, and advises the Chief, and YMP-USGS personnel on the technical quality and future direction of geologic and hydrologic activities of YMP-USGS. The SA provides liaison for the Chief, YMPB with scientists in the YMP and elsewhere, who are involved in geologic and hydrologic aspects of high-level nuclear-waste disposal.

1.4.7 Chief, Program and Plans (PAP): The Chief, PAP reports to the Chief, YMPB, and maintains responsibility for the oversight of project planning and control activities, and the management of records, data, and reports/publication activities. The Chief, PAP also serves as Associate Branch Chief, YMPB and acts for the Chief, YMPB in his absence.

1.4.8 Chief, Nevada Operations Program (NOP): The Chief, NOP reports to the Chief, YMPB and provides day-to-day YMPB representation in Nevada to DOE officials and other participants and interested parties on behalf of the Chief, YMPB. The Chief, NOP provides liaison with the DOE Yucca Mountain Site Characterization Project Site Office and the on-site support contractors for operational and logistical support of YMP-USGS field activities. The Chief, NOP also coordinates the environmental/ regulatory readiness of planned on-site activities and directs the YMP-USGS functions related to Systems Engineering.

1.4.9 Chief, Geologic Studies Program (GSP): Chief, GSP directs the geologic activities performed by Geologic Studies Program Principal Investigators and staff. The Chief, GSP reports to the Chief, YMPB. The Chief, GSP has responsibility for achieving the performance of assigned YMP-USGS tasks, including satisfying all technical, QA, or other requirements specified in USGS plans, procedures, contracts, purchase documents, or management directives.

1.4.10 Chief, Hydrologic Studies Program (HIP): Chief, HIP directs the hydrologic activities performed by Hydrologic Studies Program Principal Investigators and staff. The Chief, HIP reports to the Chief, YMPB. The Chief, HIP has responsibility for achieving the performance of assigned YMP-USGS tasks, including satisfying all technical, QA, or other requirements specified in USGS plans, procedures, contracts, purchase documents, or management directives.



United States Department of the Interior



GEOLOGICAL SURVEY
BOX 25046 M.S. 425
DENVER FEDERAL CENTER
DENVER, COLORADO 80225

WBS#: 1.2.9.3.1
QA: QA

IN REPLY REFER TO.

May 1, 1992

Ms. N. R. Karas
Science Applications International Corporation
14062 Denver West Parkway, Suite 255, Bldg. 52
Golden, CO 80401

SUBJECT: Change to QAPP-01, R5, ICN-4

Dear Nadine:

Please note the attached minor inconsequential editorial changes to Interim Change Notice 4 to the YMP-USGS Quality Assurance Program Plan YMP-USGS-QAPP-01, R5. Please track the changes in accordance with QMP-6.01, R5, para. 5.5.3 for appropriate inclusion in the next revision.

Sincerely,

for *Martha H Mustard*
T. H. Chaney, Quality Assurance Manager, Yucca Mountain Project

MHM/THC/aa
Attachment

cc: M. H. Mustard
D. D. Porter
LRC File 3.5.04

YMP-USGS-QMP-5.04, R3
Attachment 1
Page 1 of 1

YMP-USGS
INTERIM CHANGE NOTICE TO THE
QUALITY ASSURANCE PROGRAM PLAN

YMP-USGS-QAPP-01, R5
Page xiid of xii

WBS #: 1.2.3.1
QA: QA
Page 1 of 2

ICN Number: ICN-4

Applies to YMP-USGS-QAPP-01, Rev. 5

Title: U.S. Geological Survey Quality Assurance Program Plan

REQUIRED CHANGES:

Para.	Changed to
2.1.6	Replace "QA level" with "QA control" in the second paragraph, replace "QA levels" with "QA controls" in the third paragraph, and replace "QA level" with "QA control" in the fourth paragraph. <i>MMH 4/30/92 sentence</i>
2.2.1	Replace "QA level" with "QA control" in the second, third and fifth paragraphs. <i>MMH 4-30-92 Sentences</i>
2.2.4	Replace "Quality Assurance Level" with "Quality Assurance Controls."
2.2.5.1	Replace "QUALITY ASSURANCE LEVEL" with "QUALITY ASSURANCE CONTROLS;" replace "QA level" with "QA control" in the first and second paragraphs; and replace "QA levels" with "QA controls" and "YMP" with "the YMP-USGS QA Manager" in the third paragraph. <i>MMH 4-30-92 sentence</i>
2.2.5.2	Delete Section.
2.2.5.3	Delete Section.
2.2.5.4	Delete Section.

Effective Date: May 21, 1991

Supersedes ICN No. N/A

[Signature] 5/10/91
YMP-USGS Quality Assurance Manager Date

[Signature] 5/12/91
Technical Project Officer Date

[Signature] 05-14-91
Chief, Office of Regional Geology Date

[Signature] 5/15/91
Assistant Chief Hydrologist for Program Coordination and Technical Support Date

[Signature] 5/15/91
Assistant Director for Engineering Geology Date

[Signature] 5/17/91
Project Quality Manager DOE Yucca Mountain Project Date

YMP-USGS
INTERIM CHANGE NOTICE TO THE
QUALITY ASSURANCE PROGRAM PLAN
CONTINUATION SHEET

ICN Number: ICN-4

Applies to YMP-USGS-QAPP-01, Rev. 5

Title: U.S. Geological Survey Quality Assurance Program Plan

REQUIRED CHANGES:

Para.	Changed to
3.1.1.1	Replace "QA level" with "QA control" in third ^{Sentence} paragraph. <i>MHM 4-30-92</i>
3.1.1.2	Delete "QA levels or" in the last paragraph.
3.1.2	Replace "QA level" with "QA control" in first ^{Sentence} paragraph. <i>MHM 4-30-92</i>
3.1.3	Replace " <u>Quality Assurance Levels</u> " with " <u>Quality Assurance Controls.</u> "
3.1.3.1	Replace "LEVEL ASSIGNMENT" with "CONTROL ASSIGNMENT," replace "QA levels" with "QA controls" in the first two ^{sentences} paragraphs, and replace "QA level" with "QA control" in the third ^{paragraph} . <i>MHM 4-30-92</i>
3.1.3.2	Replace "QA levels" with "QA controls."
3.1.8	Replace "QA level" with "QA control."
3.3.1	Replace "perform QA Level I and II analyses" with "support quality-affecting activities."
4.1	Replace last sentence with "To the extent necessary, procurement documents of the USGS shall require that the subtier contractors provide QA controls."
4.3	Replace "QUALITY ASSURANCE LEVEL I ACTIVITIES" with "QUALITY-AFFECTING ACTIVITIES."
4.3.3	Replace second sentence with "QAPPs and documents of subcontractors for purchases supporting quality-affecting activities shall be reviewed and approved by the USGS QA Office or its delegate."
5.4	Replace "QA Level I and II activities." with "quality-affecting activities."
8.4	Replace "QA level" with "QA controls."

CORRECTION TO NNA.911105.0028

92-194



Department of Energy
Yucca Mountain Site Characterization
Project Office
P. O. Box 98608
Las Vegas, NV 89193-8608

WBS 1.2.9.3
QA

OCT 04 1991

NNA-911105-0028

Larry R. Hayes
Technical Project Officer
for Yucca Mountain
Site Characterization Project
U.S. Geological Survey
Box 25046 M.S. 425
Denver Federal Center
Denver, CO 80225

YUCCA MOUNTAIN QUALITY ASSURANCE DIVISION (YMQAD) REVIEW AND APPROVAL OF
PROPOSED CHANGES TO ~~LAWRENCE LIVERMORE NATIONAL LABORATORY (LLNL) QUALITY~~
ASSURANCE PROGRAM PLAN U.S. Geological Survey (USGS) *CH 5/4/92*

Reference: Ltr, Chaney to Horton, dtd 9/25/91

YMQAD has completed its review of the Interim Change Notice (ICN) to the U.S.
Geological Survey Quality Assurance Program Plan 01, Revision 5, Section 17,
and has arrived at the following:

- o The ICN represents a reformatting of the current revision and has broadened the requirements by including the provision for temporary storage and one-hour safes.

It has been determined that there was no degradation from the previous version. If you have any questions, please contact Catherine E. Hampton at (702) 794-7973 or FTS 544-7973.

Catherine Hampton for
Donald G. Horton, Director
Yucca Mountain Quality Assurance Division

YMQAD:CEH-194

Enclosure:
YMP USGS ICN

cc w/o encl:
T. H. Chaney, USGS, Denver, CO
D. D. Porter, SAIC, Golden, CO
R. E. Harpster, SAIC, Las Vegas, NV

YMP-USGS
INTERIM CHANGE NOTICE TO THE
QUALITY ASSURANCE PROGRAM PLAN

WBS #: 1.2.3.1

QA: QA

Page 1 of 5

ICN Number: _____

Applies to YMP-USGS-QAPP-01, Rev. 5

Title: U.S. Geological Survey Quality Assurance Program Plan

REQUIRED CHANGES:

Para. Changed to

Section 17 The entire Section 17, "Quality Assurance Records," should be changed to read:

17.0 GENERAL RECORDS REQUIREMENTS

The quality assurance (QA) records program for the USGS shall be defined, implemented, and enforced in accordance with written procedures, instructions, or other documentation. These documents describe the integrated set of activities required for creating, identifying, collecting, processing, organizing, distributing, storing, preserving, and retrieving of quality assurance records. These documents identify responsibilities of the Quality Assurance organization and other organizations.

Various regulatory agencies have requirements concerning records that are within the scope of this document. The most stringent requirements shall be used to determine final dispositions.

Effective Date: _____

Supersedes ICN No. N/A

[Signature] 9/5/91
YMP-USGS Quality Assurance Manager Date

[Signature] 9/5/91
Technical Project Officer Date

[Signature] 09-12-91
Chief, Office of Regional Geology Date

[Signature] 9/19/91
Assistant Chief Hydrologist for Program Coordination and Technical Support Date

[Signature] 9-19-91
Assistant Director for Engineering Geology Date

[Signature] 10/4/91
Project Quality Manager DOE Yucca Mountain Project Date

ENCLOSURE

YMP-USGS
INTERIM CHANGE NOTICE TO THE
QUALITY ASSURANCE PROGRAM PLAN

CONTINUATION SHEET

Page 2 of 5

ICN Number: _____ ✓

Applies to YMP-USGS-QAPP-01, Rev. 5

REQUIRED CHANGES (Continued):

Para. Changed to

(Section 17, continued)

17.1 USGS RECORDS SYSTEM

A record system or systems has been established by the USGS and is consistent with the schedule for accomplishing work activities. The records management activities to be performed by the USGS, during the processing of QA records, are detailed in the YMP-USGS Management Procedures Manual and the corresponding USGS procedures.

Records shall be distributed, handled, and controlled in accordance with these written procedures.

17.2 RECORD DEFINITION

Quality assurance procedures and instructions define minimum QA records generated as a result of implementation. The term records as used throughout this section, is to be interpreted as QA Records. QA Records include: (1) Individual documents that have been executed, completed, approved, and authenticated by all required signatures, and that furnish evidence of the quality and completeness of data (including raw data), and activities affecting quality; (2) documents prepared and maintained to demonstrate implementation of QA programs (e.g., audit, surveillance, and inspection reports); (3) procurement documents; (4) other documents, such as plans, correspondence, documentation of telecons, specifications, technical data, books, maps, papers, photographs, and data sheets; (5) magnetic media; and (6) other materials that provide data and document quality, regardless of the physical form or characteristic.

Documents that are to become QA Records are considered QA Records upon completion and authentication by all required signatures. A complete QA Record is a document that will receive no more entries and whose revision would be subject to a change control process.

17.3 RECORD GENERATION, COLLECTION, AND PROCESSING

The applicable design specifications, procurement documents, implementing procedures, operational procedures, or other documents shall specify the records to be generated, supplied, or maintained by or for the YMPO. Requirements and responsibilities for record transmittal, distribution, retrieval, retention, maintenance, and disposition of QA records shall be established and documented.

**YMP-USGS
INTERIM CHANGE NOTICE TO THE
QUALITY ASSURANCE PROGRAM PLAN**

CONTINUATION SHEET

Page 3 of 5

ICN Number: _____

Applies to YMP-USGS-QAPP-01, Rev. 5

REQUIRED CHANGES (Continued):

Para. Changed to

(Section 17, Para. 17.3, continued)

Documents designated to become records shall be legible, identifiable, accurate, complete, reproducible, microfilmable, and appropriate to the work accomplished. Documents shall be considered valid records only if stamped, initialed, or signed and dated by authorized personnel, or otherwise authenticated in accordance with approved procedures. These records may be originals or reproduced copies. Authentication may take the form of a statement by the responsible individual or organization. Handwritten signatures are not required if the document is clearly identified as a statement by a reporting individual or organization.

17.4 RECEIPT OF RECORDS

The USGS shall designate a person or organization to be responsible for receiving the records. The designee shall be responsible for organizing and implementing a system of receipt control of records in accordance with approved procedures. The individual or organization responsible for receiving records shall provide protection from damage, deterioration, or loss during the time that the records are in their possession. The receipt-control system shall be structured to permit a current and accurate assessment of the status of records. As a minimum, the receipt control system shall include the following:

- o A method for designating the required records.
- o A method for identifying the records received.
- o Procedures for receipt and inspection of incoming records.
- o A method for submittal of completed records to the permanent storage facility without unnecessary delay.

17.5 RECORD IDENTIFICATION

Records or indexing systems, or both, shall provide sufficient information to permit identification between the record and the items or activities to which it applies. The records shall be indexed, and the indexing system or systems shall include, as a minimum, the location of the record within the record system or systems.

YMP-USGS
INTERIM CHANGE NOTICE TO THE
QUALITY ASSURANCE PROGRAM PLAN

CONTINUATION SHEET

Page 4 of 5

ICN Number: _____

Applies to YMP-USGS-QAPP-01, Rev. 5

REQUIRED CHANGES (Continued):

Para. Changed to

(Section 17, continued)

17.6 RECORDS STORAGE

Upon record initiation and prior to final completion and authentication, measures shall be taken by the record source to protect the integrity of the record. Records are controlled from time of completion through the time of submittal to a permanent storage facility. The Project Central Records Facility (CRF) shall be the permanent storage facility for Project records. Storage, as defined by NQA-1, is the sole responsibility of the CRF.

Upon shipment to the USGS Local Records Center, and prior to and during shipment to the Project Central Records Facility, records shall be stored in locations that meet the requirements of applicable standards. Records maintained by the USGS at their facility or other locations (on an interim or other basis) shall be accessible to the YMPO or its designated alternate. The USGS provides temporary storage of records while processing for submittal to the CRF, which at a minimum records shall be stored in a one-hour fire rated container or in dual facilities. The container shall bear a UL label (or equivalent) certifying one-hour fire protection or be certified by a person competent in the technical field of fire protection. Temporary storage shall not exceed two years. For storage requirements that will exceed two years, records shall be stored in either dual storage or an NQA-1, Supplement 17S-1 compliant single storage facility until returned to the LRC for processing and submittal to the CRF.

Records shall be stored to preclude deterioration of the records. The following requirements shall apply:

- o Provisions shall be made in the storage arrangement to prevent damage from moisture, temperature, and pressure.
- o Records shall be firmly attached in binders or placed in folders or envelopes for storage in steel file cabinets or on shelving in containers.
- o Provisions shall be made for special processed records (e.g. radiographs, photographs, negatives, microfilm, magnetic material, etc.) to prevent damage from excessive light, stacking, electromagnetic fields, temperatures, and humidity.

Measures shall be established to preclude the entry of unauthorized personnel in the storage area. A list shall be maintained designating those personnel who shall have access to the files. These measures shall guard against larceny and vandalism. Measures also shall be taken to provide for replacement, restoration, or substitution of lost or damaged records.

YMP-USGS
INTERIM CHANGE NOTICE TO THE
QUALITY ASSURANCE PROGRAM PLAN

CONTINUATION SHEET

Page 5 of 5

ICN Number: _____

Applies to YMP-USGS-QAPP-01, Rev. 5

REQUIRED CHANGES (Continued):

Para. Changed to

17.7 RECORDS CLASSIFICATION

All YMP quality assurance records are classified as lifetime records and they are required to be retained for the life of the Project.

17.8 CORRECTED RECORDS

Records may be corrected in accordance with written procedures that provide for appropriate review or approval by the originating organization or person. The correction shall include the date and the identification of the person authorized to issue such correction.

WBS 1.2.9.3
QA

OCT 04 1991

10-4-91

~~OCT 07 1991~~ *ajc*

Larry R. Hayes
Technical Project Officer
for Yucca Mountain
Site Characterization Project
U.S. Geological Survey
Box 25046 M.S. 425
Denver Federal Center
Denver, CO 80225

YUCCA MOUNTAIN QUALITY ASSURANCE DIVISION (YMQAD) REVIEW AND APPROVAL OF
PROPOSED CHANGES TO LAWRENCE LIVERMORE NATIONAL LABORATORY (LLNL) QUALITY
ASSURANCE PROGRAM PLAN

Reference: Ltr, Chaney to Horton, dtd 9/25/91

YMQAD has completed its review of the Interim Change Notice (ICN) to the U.S.
Geological Survey Quality Assurance Program Plan 01, Revision 5, Section 17,
and has arrived at the following:

- o The ICN represents a reformatting of the current revision and has broadened the requirements by including the provision for temporary storage and one-hour safes.

It has been determined that there was no degradation from the previous version. If you have any questions, please contact Catherine E. Hampton at (702) 794-7973 or FTS 544-7973.

"ORIGINAL SIGNED BY"

for Catherine Hampton
Donald G. Horton, Director
Yucca Mountain Quality Assurance Division,

YMQAD:CEH-194

Enclosure:
YMP USGS ICN

cc w/o encl:
T. H. Chaney, USGS, Denver CO
D. D. Porter, SAIC, Golden, CO
R. E. Harpster, SAIC, Las Vegas, NV

CONCURRENCE
RTG. SYMBOL
YMP.....
INITIALS
<i>CH</i>
Horton...
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10/4/91
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01:06:16:100 7 OCT 91 9:10

USGS

Jan 2, 1992 ltr Roberts to Holonich of ICNs 3/4/5/6/7

ICN #3

Page 1 of 1 paragraph 18.1.2.2 (this change does not meet the NUREG intent of triennial audits (it is not as it was written before)

Paragraph 18.1.2.3 does this deletion meet the intent of QARD/QAPD?

ICN #4

Paragraph 2.1.6 / 2.2.1

References changing nomenclature - paragraphs s/b sentences

2.2.5.1 - same

3.1.1.1 - same

3.1.2 - same

October 4th memo Horton to Hayes- LLNL

Memo Spence to Hayes its got Rev. 5 shouldn't it be an ICN # not a Revision

ICN Notices - doesn't list ICN #'s

COMMENTS ON THE USGS ICNs

1. Although this represents a reduction in the number of audits performed, the requirement as presented in ICN 3 is consistent with NQA 1 and Regulatory Guide 1.28.
2. The QARD does not address Joint Audits. Supplier audits performed by the USGS will be done as External Audits.
3. The USGS will issue a minor change to correct these anomalies.
4. Correspondence issued by the YMQAD to the USGS indicated changes to Rev. 5 of the USGS QAPP. The subject ICNs are the vehicle to reflect what these changes are.



"INFORMATION COPY"

Department of Energy
Washington, DC 20585

I-322630

UMD.920107.0049

JAN 02 1992

DIVISION: *Spence*
CC: *Hampton*
Cooper Jones S
Barton / Crawley
Sperstedt / Petri
Fertz / Johnson
Dyer / Blanchard
Catter / Magruder
Cozele / Hugo

Mr. Joseph J. Holonich, Director
Repository Licensing and Quality
Assurance Project Directorate
Division of Nuclear Material Safety
and Safeguards
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Dear Mr. Holonich:

The Yucca Mountain Quality Assurance Division completed its review and evaluation of the U.S. Geological Survey (USGS) Change Notices 3, 4, 6, and 7 to the USGS Quality Assurance (QA) Program Plan 01, Revision 5. The USGS Change Notice 5 was for an editorial and the change did not have a U.S. Department of Energy (DOE) review.

As a result, it has been determined that the proposed changes are consistent and in compliance with the Office of Civilian Radioactive Waste Management QA Requirements Document, Revision 4, and that there has been no relaxation of the requirements.

Therefore, this letter serves as a formal notice of approval of the change notices by the DOE. The enclosed changes notices are forwarded to the U.S. Nuclear Regulatory Commission for information.

Should you have any questions, please contact Sharon Skuchko of my office at (202) 586-4590.

Sincerely,

John P. Roberts
Acting Associate Director for
Systems and Compliance
Office of Civilian Radioactive
Waste Management

4 Enclosures:
USGS Changes Notices 3, 4, 6, and 7

REC'D IN YMP *Wendy*
1-7-92 *July 1992*

cc w/Enclosures:

C. Gertz, YMPO
R. Loux, State of Nevada
K. Whipple, Lincoln County, NV
M. Baughman, Lincoln County, NV
J. Bingham, Clark County, NV
D. Bechtel, Clark County, NV
S. Bradhurst, Nye County, NV
B. Raper, Nye County, NV
P. Niedzielski-Eichner, Nye County, NV
R. Campbell, Inyo County, CA
R. Michener, Inyo County, CA
G. Derby, Lander County, NV
P. Goicoechea, Eureka, NV
C. Schank, Churchill County, NV
C. Jackson, Mineral County, NV
F. Sperry, White Pine County, NV
L. Vaughan, Esmeralda County, NV
K. Hooks, NRC

FOR OCRWM DISTRIBUTION**OSC DISTRIBUTION:**

Linda Desell, RW-331
John Roberts, RW-33
Originator's Chron: Skuchko, RW-331 (w/Enc)
OSC Chron: (1 copy)
OSC File: 6.1.2.3 (w/Encls)
CRF (2 copies) (1 w/Encls)
Reg Integration Branch Chron: (1 copy)

RW-331:USGSNOTS.fin:12/18/91:SS

LAN, G:\DATA\HOME\RW-331

BCC:

F. Peters, RW-2
D. Horton, RW-3
S. Brocoum, RW-22
C. Hampton, YMPO
R. Spence, YMPO
R. Jackson, Weston
J. Marchand, Weston
(w/Encls)
M. Meyer, CER
S. Kraft, EEI
W. Griffin, NWMS M&O
L. Tipton, NWMS M&O

SUBJECT: DOE transmittal to NRC of U.S. Geological Survey (USGS)
Change Notices 3, 4, 6, and 7 to the USGS Quality
Assurance Program Plan 01, Revision 5.

ACTION ITEM:

RECORD NOTE:

Concurrences: Skuchko/Desell/Roberts/Brocoum/Horton/Roberts

YMP-USGS
INTERIM CHANGE NOTICE TO THE
QUALITY ASSURANCE PROGRAM PLAN

WBS #: 1.2.3.1
QA: QA

ICN Number: 3

Applies to YMP-USGS-QAPP-01, Rev. 5

Title: U.S. Geological Survey Quality Assurance Program Plan

REQUIRED CHANGES:

<u>Para.</u>	<u>Changed to</u>
2.2.1	Insert "environmental monitoring" after "construction" in line four. Change "PQM" to "Quality Assurance Division Director."
3.1.1.1	After the second sentence insert "Environmental monitoring studies are governed by environmental monitoring plans for the determination of appropriate quality-affecting activities."
4.6	Delete paragraph.
5.3	In first line replace "instruction" with "procedures."
15.1.4.3	Delete paragraph.
15.5	Delete paragraph.
16.2	Delete paragraph.
18.1.2.2	Change entire paragraph to "Applicable elements of the QA Program for organizations on the AVL shall be audited on a triennial basis when supplemented by annual evaluations."
18.1.2.3	Delete paragraph.

Effective Date: _____

Supersedes ICN No. N/A

[Signature] 5/10/91
 YMP-USGS Quality Assurance Manager Date

[Signature] 5/12/91
 Technical Project Officer Date

Michelle N. Reynolds 05-14-91
 Chief, Office of Regional Geology Date

[Signature] 5/15/91
 Assistant Chief Hydrologist for Program Coordination and Technical Support Date

Eugene H. Rosebrom Jr. 5/15/91
 Assistant Director for Engineering Geology Date

[Signature] 5/17/91
 Project Quality Manager Date
 DOE Yucca Mountain Project

ENCLOSURE 1

YMP-USGS
INTERIM CHANGE NOTICE TO THE
QUALITY ASSURANCE PROGRAM PLAN

WBS #: 1.2.3.1
QA: QA

Page 1 of 2

ICN Number: 4

Applies to YMP-USGS-QAPP-01, Rev. 5

Title: U.S. Geological Survey Quality Assurance Program Plan

REQUIRED CHANGES:

<u>Para.</u>	<u>Changed to</u>
2.1.6	Replace "QA level" with "QA control" in the second paragraph, replace "QA levels" with "QA controls" in the third paragraph, and replace "QA level" with "QA control" in the fourth paragraph.
2.2.1	Replace "QA level" with "QA control" in the second, third and fifth paragraphs.
2.2.4	Replace " <u>Quality Assurance Level</u> " with " <u>Quality Assurance Controls.</u> "
2.2.5.1	Replace "QUALITY ASSURANCE LEVEL" with "QUALITY ASSURANCE CONTROLS;" replace "QA level" with "QA control" in the first and second paragraphs; and replace "QA levels" with "QA controls" and "YMPO" with "the YMP-USGS QA Manager" in the third paragraph.
2.2.5.2	Delete Section.
2.2.5.3	Delete Section.
2.2.5.4	Delete Section.

Effective Date: _____

Supersedes ICN No. N/A

[Signature] 5/10/91
YMP-USGS Quality Assurance Manager Date

[Signature] 5/12/91
Technical Project Officer Date

[Signature] 05-14-91
Chief, Office of Regional Geology Date

[Signature] for 5/15/91
Assistant Chief Hydrologist for Program Coordination and Technical Support Date

[Signature] 5/15/91
Assistant Director for Engineering Geology Date

[Signature] 5/17/91
Project Quality Manager Date
DOE Yucca Mountain Project

ENCLOSURE 2

YMP-USGS
INTERIM CHANGE NOTICE TO THE
QUALITY ASSURANCE PROGRAM PLAN
CONTINUATION SHEET

Page 2 of 2

ICN Number: 4

Applies to YMP-USGS-QAPP-01, Rev. 5

Title: U.S. Geological Survey Quality Assurance Program Plan

REQUIRED CHANGES:

<u>Para.</u>	<u>Changed to</u>
3.1.1.1	Replace "QA level" with "QA control" in third paragraph.
3.1.1.2	Delete "QA levels or" in the last paragraph.
3.1.2	Replace "QA level" with "QA control" in first paragraph.
3.1.3	Replace " <u>Quality Assurance Levels</u> " with " <u>Quality Assurance Controls.</u> "
3.1.3.1	Replace "LEVEL ASSIGNMENT" with "CONTROL ASSIGNMENT," replace "QA levels" with "QA controls" in the first two paragraphs, and replace "QA level" with "QA control" in the third paragraph.
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3.3.1	Replace "perform QA Level I and II analyses" with "support quality-affecting activities."
4.1	Replace last sentence with "To the extent necessary, procurement documents of the USGS shall require that the subtier contractors provide QA controls."
4.3	Replace "QUALITY ASSURANCE LEVEL I ACTIVITIES" with "QUALITY-AFFECTING ACTIVITIES."
4.3.3	Replace second sentence with "QAPPs and documents of subcontractors for purchases supporting quality-affecting activities shall be reviewed and approved by the USGS QA Office or its delegate."
5.4	Replace "QA Level I and II activities." with "quality-affecting activities."
8.4	Replace "QA level" with "QA controls."



Department of Energy
Yucca Mountain Site Characterization
Project Office
P. O. Box 98608
Las Vegas, NV 89193-8608

WBS 1.2.9.3
QA

92-194

OCT-0 4 1991

Larry R. Hayes
Technical Project Officer
for Yucca Mountain
Site Characterization Project
U.S. Geological Survey
Box 25046 M.S. 425
Denver Federal Center
Denver, CO 80225

YUCCA MOUNTAIN QUALITY ASSURANCE DIVISION (YMQAD) REVIEW AND APPROVAL OF
PROPOSED CHANGES TO LAWRENCE LIVERMORE NATIONAL LABORATORY (LLNL) QUALITY
ASSURANCE PROGRAM PLAN
USGS

Reference: Ltr, Chaney to Horton, dtd 9/25/91

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Catherine Hampton
Donald G. Horton, Director
Yucca Mountain Quality Assurance Division

YMQAD:CEH-194

Enclosure:
YMP USGS ICN

cc w/o encl:
T. H. Chaney, USGS, Denver, CO
D. D. Porter, SAIC, Golden, CO
R. E. Harpster, SAIC, Las Vegas, NV

YMP-USGS
INTERIM CHANGE NOTICE TO THE
QUALITY ASSURANCE PROGRAM PLAN

YMP-USGS-QAPP-01, R5
Page xiig of xii

WBS #: 1.2.3.1
QA: QA

Page 1 of 5

ICN Number: ICN-6

Applies to YMP-USGS-QAPP-01, Rev. 5

Title: U.S. Geological Survey Quality Assurance Program Plan

REQUIRED CHANGES:

Para. Changed to

Section 17 The entire Section 17, "Quality Assurance Records," should be changed to read:

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Effective Date: October 4, 1991

Supersedes ICN No. N/A

Harold Wiley 9/5/91
YMP-USGS Quality Assurance Date
Manager

Larry R. Han 9/05/91
Technical Project Officer Date

Nicholas W. Reynolds 9-12-91
Chief, Office of Regional Date
Geology

Wesley J. Israel 7/19/91
Assistant Chief Hydrologist Date
for Program Coordination
and Technical Support

Engene H. Reeborn Jr. 9-19-91
Assistant Director for Date
Engineering Geology

William H. Thompson 10/4/91
Project Quality Manager Date
DOE Yucca Mountain Project

YMP-USGS
INTERIM CHANGE NOTICE TO THE
QUALITY ASSURANCE PROGRAM PLAN

CONTINUATION SHEET

Page 2 of 5

ICN Number: ICN-6Applies to YMP-USGS-QAPP-01, Rev. 5

REQUIRED CHANGES (Continued):

Para. Changed to

(Section 17, continued)

17.1 USGS RECORDS SYSTEM

A record system or systems has been established by the USGS and is consistent with the schedule for accomplishing work activities. The records management activities to be performed by the USGS, during the processing of QA records, are detailed in the YMP-USGS Management Procedures Manual and the corresponding USGS procedures.

Records shall be distributed, handled, and controlled in accordance with these written procedures.

17.2 RECORD DEFINITION

Quality assurance procedures and instructions define minimum QA records generated as a result of implementation. The term records as used throughout this section, is to be interpreted as QA Records. QA Records include: (1) Individual documents that have been executed, completed, approved, and authenticated by all required signatures, and that furnish evidence of the quality and completeness of data (including raw data), and activities affecting quality; (2) documents prepared and maintained to demonstrate implementation of QA programs (e.g., audit, surveillance, and inspection reports); (3) procurement documents; (4) other documents, such as plans, correspondence, documentation of telecons, specifications, technical data, books, maps, papers, photographs, and data sheets; (5) magnetic media; and (6) other materials that provide data and document quality, regardless of the physical form or characteristic.

Documents that are to become QA Records are considered QA Records upon completion and authentication by all required signatures. A complete QA Record is a document that will receive no more entries and whose revision would be subject to a change control process.

17.3 RECORD GENERATION, COLLECTION, AND PROCESSING

The applicable design specifications, procurement documents, implementing procedures, operational procedures, or other documents shall specify the records to be generated, supplied, or maintained by or for the YMPO. Requirements and responsibilities for record transmittal, distribution, retrieval, retention, maintenance, and disposition of QA records shall be established and documented.

YMP-USGS
INTERIM CHANGE NOTICE TO THE
QUALITY ASSURANCE PROGRAM PLAN

YMP-USGS-QAPP-01,R5
Page x11(1) of x11

CONTINUATION SHEET

Page 3 of 5

ICN Number: ICN-6

Applies to YMP-USGS-QAPP-01, Rev. 5

REQUIRED CHANGES (Continued):

Para. Changed to

(Section 17, Para. 17.3, continued)

Documents designated to become records shall be legible, identifiable, accurate, complete, reproducible, microfilmable, and appropriate to the work accomplished. Documents shall be considered valid records only if stamped, initialed, or signed and dated by authorized personnel, or otherwise authenticated in accordance with approved procedures. These records may be originals or reproduced copies. Authentication may take the form of a statement by the responsible individual or organization. Handwritten signatures are not required if the document is clearly identified as a statement by a reporting individual or organization.

17.4 RECEIPT OF RECORDS

The USGS shall designate a person or organization to be responsible for receiving the records. The designee shall be responsible for organizing and implementing a system of receipt control of records in accordance with approved procedures. The individual or organization responsible for receiving records shall provide protection from damage, deterioration, or loss during the time that the records are in their possession. The receipt-control system shall be structured to permit a current and accurate assessment of the status of records. As a minimum, the receipt control system shall include the following:

- o A method for designating the required records.
- o A method for identifying the records received.
- o Procedures for receipt and inspection of incoming records.
- o A method for submittal of completed records to the permanent storage facility without unnecessary delay.

17.5 RECORD IDENTIFICATION

Records or indexing systems, or both, shall provide sufficient information to permit identification between the record and the items or activities to which it applies. The records shall be indexed, and the indexing system or systems shall include, as a minimum, the location of the record within the record system or systems.

YMP-USGS
INTERIM CHANGE NOTICE TO THE
QUALITY ASSURANCE PROGRAM PLAN

CONTINUATION SHEET

Page 4 of 5

ICN Number: ICN-6

Applies to YMP-USGS-QAPP-01, Rev. 5

REQUIRED CHANGES (Continued):

Para. Changed to

(Section 17, continued)

17.6 RECORDS STORAGE

Upon record initiation and prior to final completion and authentication, measures shall be taken by the record source to protect the integrity of the record. Records are controlled from time of completion through the time of submittal to a permanent storage facility. The Project Central Records Facility (CRF) shall be the permanent storage facility for Project records. Storage, as defined by NQA-1, is the sole responsibility of the CRF.

Upon shipment to the USGS Local Records Center, and prior to and during shipment to the Project Central Records Facility, records shall be stored in locations that meet the requirements of applicable standards. Records maintained by the USGS at their facility or other locations (on an interim or other basis) shall be accessible to the YMPO or its designated alternate. The USGS provides temporary storage of records while processing for submittal to the CRF, which at a minimum records shall be stored in a one-hour fire rated container or in dual facilities. The container shall bear a UL label (or equivalent) certifying one-hour fire protection or be certified by a person competent in the technical field of fire protection. Temporary storage shall not exceed two years. For storage requirements that will exceed two years, records shall be stored in either dual storage or an NQA-1, Supplement 17S-1 compliant single storage facility until returned to the LRC for processing and submittal to the CRF.

Records shall be stored to preclude deterioration of the records. The following requirements shall apply:

- o Provisions shall be made in the storage arrangement to prevent damage from moisture, temperature, and pressure.
- o Records shall be firmly attached in binders or placed in folders or envelopes for storage in steel file cabinets or on shelving in containers.
- o Provisions shall be made for special processed records (e.g. radiographs, photographs, negatives, microfilm, magnetic material, etc.) to prevent damage from excessive light, stacking, electromagnetic fields, temperatures, and humidity.

Measures shall be established to preclude the entry of unauthorized personnel in the storage area. A list shall be maintained designating those personnel who shall have access to the files. These measures shall guard against larceny and vandalism. Measures also shall be taken to provide for replacement, restoration, or substitution of lost or damaged records.

YMP-USGS
INTERIM CHANGE NOTICE TO THE
QUALITY ASSURANCE PROGRAM PLAN

CONTINUATION SHEET

Page 5 of 5

ICN Number: ICN-6

Applies to YMP-USGS-QAPP-01, Rev. 5

REQUIRED CHANGES (Continued):

Para. Changed to

17.7 RECORDS CLASSIFICATION

All YMP quality assurance records are classified as lifetime records and they are required to be retained for the life of the Project.

17.8 CORRECTED RECORDS

Records may be corrected in accordance with written procedures that provide for appropriate review or approval by the originating organization or person. The correction shall include the date and the identification of the person authorized to issue such correction.

WBS 1.2.9.3
QA

NOV 12 1991

Larry R. Hayes
Technical Project Officer
for Yucca Mountain
Site Characterization Project
U.S. Geological Survey
101 Convention Center Drive
Suite 860
Las Vegas, NV 89109

NOTICE OF YUCCA MOUNTAIN QUALITY ASSURANCE DIVISION (YMQAD) APPROVAL OF CHANGES TO REVISION 5 OF THE U.S. GEOLOGICAL SURVEY (USGS) QUALITY ASSURANCE PROGRAM PLAN (QAPP)

YMQAD has reviewed the changes to the approval sheet, introduction, and Section 1 of Revision 5 to the USGS QAPP and has determined that none of the changes diminishes USGS quality assurance program commitments. On that basis, the changes to Revision 5 of the QAPP are approved.

If you have any questions, please contact either Catherine E. Hampton at 794-7973 or Robert E. Harpster at 794-7840.

"ORIGINAL SIGNED BY"

R. E. SPENCE
Richard E. Spence, Director
Yucca Mountain Quality Assurance Division

YMQAD-CEH-759

Enclosures:

- 1. ICN to Revision 5 USGS QAPP
- 2. USGS Quality Assurance Program Matrix Document, Criterion 1

cc w/encls:

T. E. Chaney, USGS, Las Vegas, NV

cc w/o encls:

J. E. Gilray, NRC, Las Vegas, NV

CONCURS
RTG. SYM
.....
.YMP....
INITIALS
Hampton
DATE
11/11/91
RTG. SYM
.....
.YMP
INITIALS
Spence
DATE
11/11/91
RTG. SYM
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INITIALS
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RTG. SYM
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WB.114C
DATE

**YMP-USGS
INTERIM CHANGE NOTICE TO THE
QUALITY ASSURANCE PROGRAM DESCRIPTION**

WBS #: 1.2.3.1
QA: QA
Page 1 of 8

ICN Number: _____

Applies to YMP-USGS-QAPP-01, Rev. _____

TITLE: U.S. Geological Survey Quality Assurance Program Plan

REQUIRED CHANGES:

Para. Changed to

See attached for changes to Approval Sheet, Policy Statement, Introduction and Section 1.
EHR for JD 10/7/91

Effective Date: _____

Supersedes ICN No. _____

[Signature] 10/1/91

YMP-USGS Quality Assurance Date
Manager

[Signature] 10/01/91

Chief, Yucca Mountain Project Date
Branch

[Signature] 10/2/91

Assistant Chief Hydrologist Date
for Program Coordination
and Technical Support

[Signature] 10/4/91

Assistant Director for
Engineering Geology

[Signature] 10/14/91

Director, Yucca Mountain Quality Date
Assurance Division

U.S. GEOLOGICAL SURVEY
QUALITY ASSURANCE PROGRAM PLAN
FOR
YUCCA MOUNTAIN PROJECT

Effective Date _____

Revision 5 of this QAPP has been in effect since 5-3-89.

This signature page has been revised to reflect an organizational change.



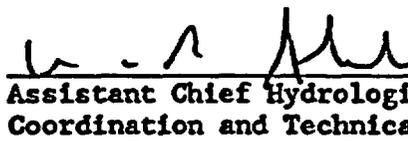
YMP-USGS QA Manager

10/11/91
Date



Chief, Yucca Mountain Project Branch:

10/01/91
Date



Assistant Chief Hydrologist for Program
Coordination and Technical Support

10/07/91
Date



USGS Assistant Director For Engineering
Geology:

10/04/91
Date



Director, Yucca Mountain Quality Assurance
Division

10/14/91
Date

QUALITY ASSURANCE PROGRAM PLAN

**YMP-USGS QUALITY ASSURANCE PROGRAM PLAN
INTRODUCTION**

The U.S. Geological Survey (USGS) has lead responsibility for conducting earth science investigations in the Yucca Mountain Project (YMP). The USGS is responsible for site characterization activities including climatology, geology, hydrology, and paleohydrology. The USGS acts as the lead technical participant for the site characterization drilling activities and provides assistance to other YMP participants for areas of specialized USGS expertise. The USGS has no repository design responsibilities, although some technical data collected by the USGS and its sub-contractors will be used by other participants as design input.

This Quality Assurance Program Plan (QAPP) describes how the USGS will satisfy the quality assurance requirements of the YMP. This QAPP specifies an assemblage of quality assurance controls that are in compliance with ANSI/ASME NQA-1 and its supplements, applicable YMP-USGS QA and management requirements, and appropriate parts of the Office of Civilian Radioactive Waste Management Quality Assurance Requirements Document (QARD).

This QAPP delineates the YMP-USGS organization as it relates to the fulfillment of its YMP Quality Assurance responsibilities. The QAPP is organized in a manner similar to ANSI/ASME NQA-1 with 18 sections and, as appropriate, supplements. Each section is comparable to the corresponding NQA-1 section.

QUALITY ASSURANCE PROGRAM PLAN

1.0 ORGANIZATION

1.1 General

This section describes organizational responsibilities of the USGS for the YMP and identifies organizational interfaces for YMP-USGS work that support a quality assurance and technical program that meets the requirements of NQA-1 for achievement of quality in all activities. The QAPP is based on an important quality principle that each person is responsible for the achievement of quality in the work the person performs. The Quality Assurance (QA) Program provides for such achievement of quality as well as verification of that achievement. The line organization has responsibility for the achievement of quality. The QA organization has the responsibility to provide assurance to senior line management of the line organization's achievement through verification of quality. This is accomplished through the conduct of overview activities such as audits, surveillances, reviews, and assessments.

1.2 YMP-USGS Responsibilities

The YMP-USGS is a participating organization in the Yucca Mountain Site Characterization Project, including the environmental monitoring program. The YMP Branch of the USGS Water Resources Division (WRD) provides administrative and budget management support and oversight for all YMP activities within the YMP-USGS scope of work. The technical program is conducted within the Hydrologic Investigation Program (HIP) and the Geologic Studies Program (GSP), and through written agreements with other organizations including the USGS Geologic Division; the U.S. Bureau of Reclamation; Lawrence Berkeley Laboratories (LBL); University of Nevada, Reno; and others. These written agreements specify how the YMP-USGS QA Program will be addressed by those organizations. Specific activities performed by the YMP-USGS are derived from the YMP Work Breakdown Structure (WBS).

It is the responsibility of the Chief, YMP Branch, to ensure that appropriate QA requirements and procedural controls are implemented for the YMP-USGS scope of work in order to provide confidence that the YMP will not cause undue risk to either the health and safety of the public or of the workers associated with the geologic repository facilities.

1.3 YMP-USGS Organization

The Water Resources Division (WRD), USGS, has been assigned the responsibility for the overall management and implementation of the USGS earth sciences support to the YMP. This responsibility is housed in the YMP Branch under the Assistant Chief Hydrologist for Program Coordination and Technical Support (ACH/PC&TS). The YMP Branch will also provide for support from other organizational units of the USGS or outside organizations through the use of written agreements.

The YMP-USGS QA organization ultimately reports to the Assistant Director of Engineering Geology, independent of the WRD line organizations. This functional relationship has been established to ensure the QA organization reports to a management level that provides the appropriate authority and organizational freedom,

QUALITY ASSURANCE PROGRAM PLAN

including sufficient independence from cost and schedule considerations, to fulfill its responsibilities. The responsibilities of these various organizations are as described in Section 1.4 below.

The YMP-USGS QA Office functions are those of assuring that an appropriate QA program is established and executed effectively, and of verifying that requirements have been performed correctly by checking, auditing, conducting surveillances, and otherwise monitoring activities that affect quality. The USGS may delegate to others, such as contractors, agents, or consultants, the work of establishing and executing the QA Program, or any part thereof, but the USGS shall retain the responsibility for the QA Program.

1.4 Organizational Duties and Responsibilities

The organizational structure, program responsibilities, levels of authority, and lines of communication of the USGS staff performing work on the YMP are described below. All organization and authority presented herein is YMP-USGS Project-specific and represents program relationships established to implement YMP activities. Where there are conflicts or disputes involving differences of opinion among YMP-USGS personnel, they will, as necessary, be elevated through the organizational hierarchy described in this section. The organization of the USGS with respect to the YMP-USGS and QA is shown in Figure 1.

1.4.1 Director, USGS: The Director is responsible for the overall direction of the USGS activities. The Director has delegated YMP-USGS QA program responsibilities to the Assistant Director for Engineering Geology. This management function includes responsibility for the YMP-USGS QA Program, including final USGS resolution of conflicts and disputes involving quality arising from differences of opinion between YMP-USGS QA Office personnel and technical/administrative personnel.

1.4.2 Quality Assurance (QA) Manager, YMP-USGS: The QA Manager directs the development and verification of the YMP-USGS QA Program, and in this regard reports to the Assistant Director for Engineering Geology. The QA Manager interfaces with the Chief, YMPB and technical personnel on QA matters, as necessary. The basic responsibilities of the overall QA organization are development of the QA Program, verification that YMP-USGS activities are conducted in accordance with governing documents, and implementation of specific QA Office requirements. In this capacity, the QA Manager has the responsibility to:

- a) Develop, review, and approve the YMP-USGS QA Program Plan and the YMP-USGS implementing procedures;
- b) Maintain liaison with DOE Yucca Mountain Site Characterization Project Office (YMPO) management to assure adequate compliance with the YMP QA Program;
- c) Provide and direct QA support for the YMP-USGS;
- d) Identify quality problems, provide or review solutions to those problems, and verify implementation of solutions.

QUALITY ASSURANCE PROGRAM PLAN

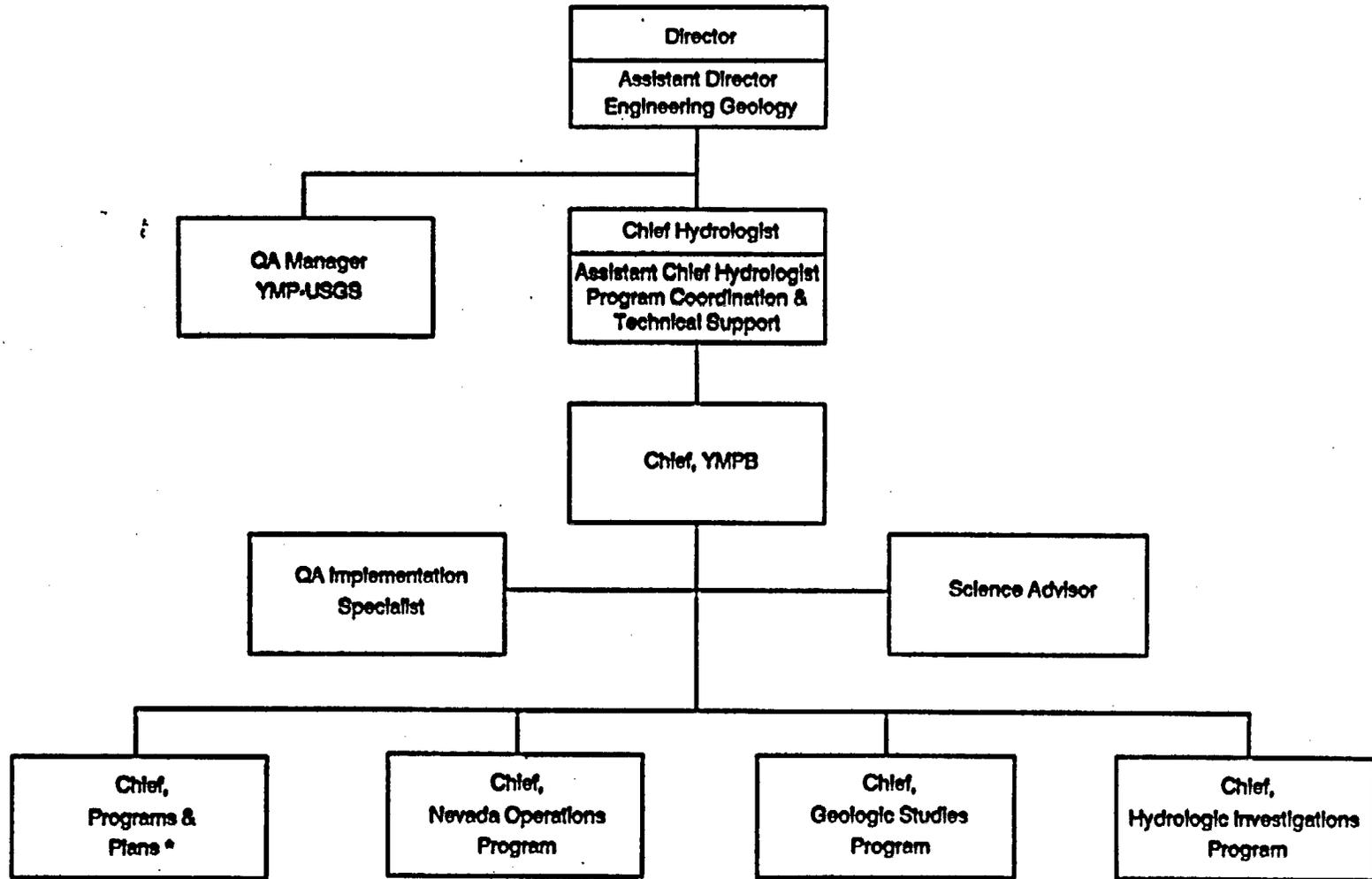
- e) Assure unsatisfactory conditions are properly controlled and, if necessary, stop work that does not meet QA standards;
- f) Verify the adequacy and effectiveness of quality assurance implementation through the conduct of audits, surveillances, reviews, and trend analysis; and
- g) Resolve conflicts and disputes between QA personnel and others.

1.4.3 Chief, Hydrologist, Water Resource Division (WRD): The Chief Hydrologist has overall responsibility for managing the WRD technical program. The YMP-USGS responsibilities have been delegated to the Assistant Chief Hydrologist for Program Coordination and Technical Support (ACH/PC&TS). The ACH/PC&TS provides management oversight for the YMPB activities.

1.4.4 Chief, YMP Branch (YMPB): This position is also referenced as the Technical Project Officer (TPO). The Chief, YMPB reports to the ACH/PC&TS, WRD and has been delegated direct management responsibility for the YMP-USGS technical program. The Chief, YMPB responsibilities include YMP-USGS line management, programmatic, and budgetary responsibility for technical and administrative USGS and contractor personnel assigned to the YMP, including responsibility for the implementation of the YMP-USGS QA Program. The Chief, YMPB responsibilities include but are not limited to the following:

- a) Planning and directing work activities;
- b) Complying with quality requirements imposed by quality program documents;
- c) Satisfying staff resource needs, cost, and schedule objectives, and deliverable requirements;
- d) Approving and implementing the YMP-USGS QAPP and the YMP-USGS QA program implementing procedures;
- e) Implementing the YMP procedures as they apply to the YMP-USGS scope of work;
- f) Implementing corrective actions for deficiencies identified within YMP-USGS quality program;
- g) Providing periodic assessment regarding the adequacy and effectiveness of the YMP-USGS quality program;
- h) Approving and implementing Stop Work Order; and
- i) Planning and directing the YMP-USGS training program.

**Organizational Structure
Yucca Mountain Project Branch**



* Also Serves as Associate Branch Chief

Figure 1. Organizational Chart

QUALITY ASSURANCE PROGRAM PLAN

1.4.5 QA Implementation Specialist, YMPB: This position reports to the Chief, YMPB and interprets QA requirements of the USGS and directs and provides guidance to ensure the effective and appropriate implementation of the quality assurance program, as developed by the YMP-USGS QA Manager's Office. The QA Implementation Specialist also provides liaison with the YMPB, the QA Office, the GSP and HIP Chiefs and the DOE regarding quality assurance implementation.

1.4.6 Science Advisor (SA): The SA reports to the Chief, YMPB, and advises the Chief, and YMP-USGS personnel on the technical quality and future direction of geologic and hydrologic activities of YMP-USGS. The SA provides liaison for the Chief, YMPB with scientists in the YMP and elsewhere, who are involved in geologic and hydrologic aspects of high-level nuclear-waste disposal.

1.4.7 Chief, Program and Plans (PAP): The Chief, PAP reports to the Chief, YMPB, and maintains responsibility for the oversight of project planning and control activities, and the management of records, data, and reports/publication activities. The Chief, PAP also serves as Associate Branch Chief, YMPB and acts for the Chief, YMPB in his absence.

1.4.8 Chief, Nevada Operations Program (NOP): The Chief, NOP reports to the Chief, YMPB and provides day-to-day YMPB representation in Nevada to DOE officials and other participants and interested parties on behalf of the Chief, YMPB. The Chief, NOP provides liaison with the DOE Yucca Mountain Site Characterization Project Site Office and the on-site support contractors for operational and logistical support of YMP-USGS field activities. The Chief, NOP also coordinates the environmental/regulatory readiness of planned on-site activities and directs the YMP-USGS functions related to Systems Engineering.

1.4.9 Chief, Geologic Studies Program (GSP): Chief, GSP directs the geologic activities performed by Geologic Studies Program Principal Investigators and staff. The Chief, GSP reports to the Chief, YMPB. The Chief, GSP has responsibility for achieving the performance of assigned YMP-USGS tasks, including satisfying all technical, QA, or other requirements specified in USGS plans, procedures, contracts, purchase documents, or management directives.

1.4.10 Chief, Hydrologic Studies Program (HIP): Chief, HIP directs the hydrologic activities performed by Hydrologic Studies Program Principal Investigators and staff. The Chief, HIP reports to the Chief, YMPB. The Chief, HIP has responsibility for achieving the performance of assigned YMP-USGS tasks, including satisfying all technical, QA, or other requirements specified in USGS plans, procedures, contracts, purchase documents, or management directives.

Concerns
USGS

Jan 2, 1992 ltr Roberts to Holonich of ICNs 3/4/5/6/7

ICN #3

1. < Page 1 of 1 paragraph 18.1.2.2 (this change does not meet the NUREG intent of triennial audits (it is not as it was written before)
2. < Paragraph 18.1.2.3 does this deletion meet the intent of QARD/QAPD?

ICN #4

Paragraph 2.1.6 / 2.2.1

References changing nomenclature - paragraphs s/b sentences

3. { 2.2.5.1 - same
- 3.1.1.1 - same
- 3.1.2 - same

October 4th memo Horton to Hayes- LLNL

4. { Memo Spence to Hayes its got Rev. 5 shouldn't it be an ICN # not a Revision

ICN Notices - doesn't list ICN #'s

QUALITY ASSURANCE OFFICE
YMP-USGS, DENVER CO
UNCLASSIFIED
FACSIMILE TRANSMITTAL

RECEIVE FTS 776-5046
COM 303-236-5046

VERIFICATION FTS 776-1418
COM-303-236-1418



FROM: Martha Mustard

TO: John Therien

COMMENTS: ^{some of} Here is ^{the} previous correspondence between USGS and YMPD concerning annual vs. triennial audits of suppliers (3 pages) PRIOR to our ICN to the QAPP. Verbal direction from YMPD instructed us to do this as an "interpretation" because they didn't want Participants to change their QAPPs at that time. A subsequent internal audit caught this however and we had to formally change the QAPP

② This is an example of how we have handled minor changes to the QAPP in the past. We have not yet done anything about the

NUMBER OF PAGES, EXCLUDING COVER SHEET 4
DATE 4-29-92

sentence vs. para-bombay but we can gin up another internal memo like this if it helps Belke. Our QMP 6.01 does not require formal distribution of minor editorial changes - just requires we incorporate into next rev.

GS.FO.A. 008457



Department of Energy

Nevada Operations Office

P. O. Box 98518

Las Vegas, NV 89193-8518

MAR 12 1990

WBS 1.2.9.3
QA

Tom Chaney
Acting Quality Assurance Manager
U.S. Geological Survey
P.O. Box 25046, M/S 425
Denver Federal Center
Lakewood, CO 80225

3.7.01

and
3.18.01

ANNUAL EVALUATIONS AND AUDITS OF YUCCA MOUNTAIN PROJECT OFFICE (PROJECT OFFICE)-U.S. GEOLOGICAL SURVEY (USGS) SUPPLIERS

Reference: Letter, Chaney to Horton, dtd. 2/26/90

The Project Office Quality Assurance (QA) has received the referenced letter which discusses the USGS interpretation of current Project Office QA requirements regarding annual supplier evaluations and audits. Based on our review of your letter and the discussions we have had on this subject, we concur with the USGS interpretation of these requirements as indicated by my concurrence on the enclosed.

The Project Office QA appreciates your efforts in addressing this issue.

Donald G. Horton, Director
Quality Assurance Division
Yucca Mountain Project Office

YMP:NAV-2333

Enclosure:
Ltr 2/26/90 Chaney to Horton





United States Department of the Interior

GEOLOGICAL SURVEY
BOX 25046 M.S. 425
DENVER FEDERAL CENTER
DENVER, COLORADO 80225



IN REPLY REFER TO:

WBS # 1.2.9.3.1
QA: QA
February 26, 1990

Donald G. Horton, Director,
Quality Assurance Division
Yucca Mountain Project Office
U.S. Department of Energy
P.O. Box 98518
Las Vegas, NV 89193-8518

CER _____

SUBJECT: ANNUAL EVALUATIONS AND AUDITS OF YMP-USGS SUPPLIERS

Dear Don:

The following USGS interpretation of requirements regarding annual supplier evaluations and audits is provided for your consideration and concurrence.

Criterion VII requires the purchaser to establish measures to verify supplier's performance, as deemed necessary by the purchaser (reference DOE/YMP 88-9, Rev. 3, Section VII, para. 1.4 and YMP-USGS-QAPP-01, Rev. 5, para. 7.1.4). Criterion XVIII contains requirements both for annual evaluations of suppliers and for audits of an external organization's QA Program at least annually or once during its lifetime unless the activity is less than four months in duration (reference DOE/YMP 88-9, Rev. 3, Section XVIII, para 1.2 and YMP-USGS-QAPP-01, Rev. 5, para. 18.1.2). The USGS considers the annual evaluation as a means to determine the need for further verification measures. Based on this interpretation, the USGS may waive the annual supplier audit based on the results of the annual evaluation.

The USGS will evaluate suppliers on our Approved Vendors List on an annual basis to assure that suppliers continue to meet the necessary requirements of our QA Program. These evaluations may be done as audits, surveillances, or may be performed as reviews of the following documents, as applicable to each supplier:

- o procurement documents,
- o receiving/acceptance documents (i.e. certificate of conformance),
- o supplier and USGS deficiency documents.

Handwritten notes and signatures:
 NN: 11/11-1327
 Horton
 Robertson
 Nusselt
 Wesselt
 Stables
 Melillo
 Johnson
 Horton
 Robertson
 Nusselt
 3/5/91

Letter to D. G. Horton,

February 26, 1990

- Page 2 -

- o previous evaluations including surveillances and audits, and
- o the approved items/services and conditions for use as stated in the Approved Vendors List.

Based on the evaluation results and the relative complexity and importance of the items/services for our scientific investigations, the USGS will determine if additional verification activities will be required. However, at a minimum a triennial audit will be performed.

Your concurrence with this interpretation will be appreciated. If you have any questions or require additional information, please contact me at FTS 776-1418.

Sincerely,



Thomas H. Chaney,
Acting Quality Assurance Manager

Concurrence:



Donald G. Horton,
DOE Director
Quality Assurance Division
Yucca Mountain Project

MHM/THC

cc: V.R. Schneider
E.H. Roseboom
M.W. Reynolds
L.R. Hayes
M.H. Mustard
W. Rodman
J. Blaylock
N.A. Voltura
D.D. Porter
A.M. Whiteside
LRC Files 3.7.01 and 3.18.01



United States Department of the Interior

GEOLOGICAL SURVEY
 BOX 25046 M.S. 425
 DENVER FEDERAL CENTER
 DENVER, COLORADO 80225



IN REPLY REFER TO:

WBS#: 1.2.9.3.1

QA:QA

October 11, 1990

Ms. M.E. Bennington
 Science Applications International Corporation
 14062 Denver West Parkway, Suite 255, Bldg. 52
 Golden, CO 80401

SUBJECT: Change to QAPP-01, R5

Dear Beth:

The following minor inconsequential editorial changes are necessary for the Quality Assurance Program Plan. Any reference to the "Project Quality Manager" or "PQM" should now read "Quality Assurance Division Director". Any reference to the "SAIC/T&MSS Project QA Department (QA Verification Division Manager)" should now read "DOE/YMPO Quality Assurance Division". Please track the changes in accordance with QMP-6.01, R5, para. 5.5.3 for inclusion in the next revision.

Sincerely yours,

Martha H. Mustard

for David H. Appel,
 Quality Assurance
 Manager, Yucca
 Mountain Project

MHM/DHA/aa

cc: M.H. Mustard
 D.D. Porter
 LRC File 3.5.04