YUCCA MOUNTAIN PROJECT OFFICE
DOCUMENT APPROVAL SHEET

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Title

QUALITY MANAGEMENT PROCEDURE: ORGANIZATION

APPROVAL

PROJECT MANAGER:	M. P. KUNICH Signature	10/29/84 Date
DIRECTOR OF QUALITY ASSURANCE:	JOHN RINALDI Signature	11/18/84 Date
QASC QA MANAGER (OTHER, AS REQUIRED)	S. H. KLEIN Signature	10/26/84 Date

REVISION 0 EFFECTIVE DATE: 12/10/84

REVISIONS

	INITIAL AND DATE			
	REVISION 1	REVISION 2	REVISION 3	REVISION 4
PROJECT MANAGER:	M. E. SPAETH 5/16/88	[signature] 10/12/90		
DIRECTOR, QA:	JAMES BLAYLOCK 5/23/88	[signature] 10/12/90		
WMPO PROJECT MGR. (OTHER, AS REQUIRED)	M. P. KUNICH 5/18/88	N/A [signature] 10/12/90		
EFFECTIVE DATE:	5/27/88	10/12/90		

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1.0 PURPOSE AND SCOPE

1.1 PURPOSE

This procedure describes the organizational structure, functional responsibilities, levels of authority, and lines of communication for the Office of Geologic Disposal (OGD) and the Yucca Mountain Project Office (Project Office) and the functional responsibilities of the OGD/Project Office's matrix and support organizations (hereafter referred to as OGD/Project Office Personnel).

1.2 SCOPE

This procedure provides for the application of the requirements delineated in Section 1 of the Office of Civilian Radioactive Waste Management (OCRWM) Quality Assurance (QA) Program Description (QAPD), DOE/RW-0215.

2.0 APPLICABILITY

The organization and responsibilities outlined in this procedure apply to OGD/Project Office Personnel who perform activities (including quality-related) in support of the Project.

3.0 DEFINITIONS

NOTE: Terms in this procedure are used as defined in OCRWM QA Requirements and Program Description Documents or the Program Glossary.

4.0 RESPONSIBLE PARTIES

The Director, OCRWM has delegated to the Associate Director, Office of Geologic Disposal (ADGD) and to the Project Office Project Manager (PM) the authority, responsibility, and accountability for Project technical and quality performance, cost, and schedule. The ADGD also serves as the PM for the Project Office (hereafter referred to as the ADGD/PM). The organization structure for the OGD/Project Office is shown in attachment 1. Each division and associated branches specific functional responsibilities are provided in Sections 4.5 through 4.8 of this procedure. QA responsibilities and the Site Manager's responsibilities are provided in Sections 4.9 and 4.10, respectively.

4.1 ADGD/PM

The ADGD/PM is responsible for the overall work conducted in support of the Project. The ADGD/PM reports to the Director, OCRWM. The ADGD/PM is responsible for the following:

1. Establishing or approving the scope of OGD/Project Office activities affecting quality, commensurate with the QAPD.

2. Ensuring the OGD/Project Office personnel who perform activities affecting quality are qualified by education, experience and training to perform assigned tasks.

3. Evaluating results of activities that verify quality achievement within the scope of work assigned to OGD/Project Office.

4. Assigning responsibility for the quality of delegated work, prior to initiating the work activities.

5. Ensuring the technical adequacy of items and activities including the technical adequacy of procurement documents, for which OGD/Project Office has lead responsibility, and the implementation of effective management controls.

6. Acting on the Director, OQA's recommendations relative to acceptance of OGD/Project Office-managed program participants' and other affected organizations' quality assurance programs.

7. Coordinating with other involved Associate Directors, the OCRWM verification of HQ-managed program participants' and other affected organizations' activities affecting quality, for which OGD/Project Office has lead responsibility, and ensuring that applicable quality assurance program documents are accepted by OCRWM prior to initiation of work activities.

8. Ensuring that adequate funds and resources are provided for OGD/Project Office activities affecting quality.

9. Identifying and reporting quality-related issues and problems to the Director, OCRWM and the Director, OQA, and effect resolution for quality-related problems and issues in OGD/Project Office's area of responsibility.

10. Developing and maintaining those implementing line and quality assurance procedures and other quality assurance documents and records for which the OGD/Project Office has lead responsibility.

11. Reviewing and approving indoctrination and training requirements for OGD/Project Office Division Directors and providing for the indoctrination and training of OGD/Project Office personnel.

12. Approving plans as necessary to establish the basis for orderly achievement of technical and quality objectives.

13. Ensuring effective implementation of the QA program by line management.

14. Monitoring QA program implementation on an ongoing basis and taking remedial action as necessary.

15. Ensuring that activities are performed in a safe and environmentally acceptable manner.

4.1.1 Institutional Staff

Members of the ADGD/PM staff provide institutional interactions with concerned parties. Interactions with affected parties are guided by the Nuclear Waste Policy Act, as amended, and by the policies provided in the OCRWM Mission Plan.

4.2 DEPUTY PROJECT MANAGER

The Deputy Project Manager reports directly to the ADGD/PM and is responsible for assisting the ADGD/PM in the implementation of the activities indicated in Section 4.1 of this procedure.

4.3 DIVISION DIRECTORS (DDs) AND SITE MANAGER

The DDs and the Site Manager report to the ADGD/PM and have the following QA program responsibilities:

1. Establishing the scope of QA activities and requirements for those activities under their purview, and obtaining the approval of the ADGD/PM.

2. Ensuring that personnel who are under the direction of the DD and perform activities affecting quality are qualified by education, experience and training to perform assigned tasks.

3. Ensuring, by using methods that verify quality achievement, the technical adequacy of items and activities and the effectiveness of management controls.

4. Ensuring adequate resources are available for quality achievement and verification activities.

5. Identifying and reporting to the ADGD/PM and for obtaining resolution to quality-related issues and problems that affect or potentially affect, the Division's activities.

6. Developing and maintaining those implementing line and QA procedures and other QA program documents and records for which the Division has lead responsibility.

7. Reviewing and approving indoctrination and training requirements for Branch Chiefs and other personnel under their supervision.

4.4 BRANCH CHIEFS

The Branch Chiefs report to the DDs and have the following QA program responsibilities.

1. Ensuring that technical personnel under their direction and who perform activities affecting quality, are qualified by education, experience and training to perform assigned tasks.

2. Identifying indoctrination and training requirements for Branch personnel.

3. Ensuring the technical adequacy of items and activities within their area of responsibility.

4. Reporting quality-related issues and problems that affect or potentially affect activities of the Branch to the DD and obtaining satisfactory resolution.

4.5 REGULATORY AND SITE EVALUATION DIVISION

The Regulatory and Site Evaluation Division (RSED) consists of three branches, Regulatory Interactions Branch, Technical Analysis Branch, and Site Investigations Branch. These branches are collectively responsible for managing the technical investigations and licensing requirements during the Site Characterization Phase. The Division integrates the technical activities (e.g., geology, hydrology, geochemistry, climate) performed by the branches and conducts technical evaluations of the cost and schedule of the work managed by the branches. The RSED manages all postclosure performance assessment activities, including the development of models that represent processes and events acting at the site that could impact containment and isolation of radioactive waste.

4.5.1 Regulatory Interactions Branch

The Regulatory Interactions Branch provides the Project geotechnical interface with the regulatory agencies, including the Nuclear Regulatory Commission (NRC) and the Environmental Protection Agency (EPA), and the Nuclear Waste Technical Review Board (NWTRB). This Branch ensures that applicable regulatory requirements related to geotechnical issues are received, reviewed for Project impact, and promptly incorporated into the Project plans and activities. Responsibilities include preparing, reviewing, and issuing Project documents required for compliance with the Nuclear Waste Policy Act, as amended, (NWPAA) and NRC licensing requirements.

This branch ensures that technical documents required for site characterization are prepared, reviewed, and issued to support the Project needs and objectives. These documents include the Site Characterization Plan (SCP), Study Plans, Site Requirements, geotechnical input into the Environmental Impact Statement (EIS), Project Position Papers, Licensing Topical Reports, and the License Application. The branch initiates and conducts technical assessment reviews and peer reviews.

4.5.2 Technical Analysis Branch

The Technical Analysis Branch manages the technical activities associated with identifying and distributing information required from scientific investigations. This Branch prepares the Project Technical Status report and coordinates Project input to the SCP Semiannual Progress Report. The Technical Analysis Branch ensures that the technical documents describing the results from site characterization are reviewed and issued to support the Project needs and objectives. These include geotechnical documents describing the characteristics of the site and the processes acting on the site to change its characteristics that have been prepared by the Project Participants. The Technical Analysis Branch manages technical data from site characterization and ensures the data flows into the Reference Information Base (RIB), the Site and Engineering Properties Data Base, local record centers, and the Central Records Facility for use in design and performance assessment. The Branch initiates and conducts technical assessment reviews and peer reviews.

4.5.3 Site Investigations Branch

The Site Investigations Branch manages all surface based and underground testing that occurs at the site during site characterization. This Branch manages and integrates the geotechnical activities of all Project Participants for surface-based and underground testing to ensure that site characterization activities are conducted in accordance with the applicable Study Plans and Test and Evaluation Plan. The branch conducts readiness reviews to ensure test activities complete prerequisites before starting in

the field. The Site Investigations Branch is supported by the Yucca Mountain Site Office (Site Office), which coordinates the field testing activities as required and as directed by the ADGD/PM and DD. The Site Investigations Branch initiates and conducts technical assessment reviews and peer reviews.

4.6 ENGINEERING AND DEVELOPMENT DIVISION

The Engineering and Development Division consists of three Branches: the Exploratory Shaft Branch, the Field Engineering Branch, and the Systems Branch. This Division has the overall management responsibility for engineering activities associated with the design and engineering of the Exploratory Shaft Facility (ESF), the Geologic Repository, and the Waste Package.

4.6.1 Exploratory Shaft Branch

The Exploratory Shaft Branch manages the activities required to design, construct, and operate the ESF and Surface-Based Test Facilities.

The Exploratory Shaft Branch manages the Nevada Test Site (NTS) contractors involved in the ESF and Surface-Based Test Facilities design and construction activities. The Exploratory Shaft Branch is supported by the Yucca Mountain Site Office (Site Office) which coordinates the site activities as required, and as directed by the ADGD/PM and the DD E&DD.

4.6.2 Field Engineering Branch

The Field Engineering Branch manages those research and development activities associated with the design of the repository, waste package, and associated engineered barriers.

The Field Engineering Branch maintains cognizance of the various external activities that impact the repository surface facilities and equipment design, such as the Monitored Retrieval Storage (MRS) and transportation system and the waste mix and processing.

4.6.3 System Branch

The System Branch manages the processes for the overall integration of the activities on the Project and the external interface with MRS and transportation elements of the program. This Branch manages the preparation and maintenance of the technical baseline requirements documents and specifications involving the Waste Package, Mined Geologic Disposal System (MGDS) Description, Total System Life-Cycle Cost, System Study Register, Site, Repository, ESF, Surface-Based Test Facilities, Interface Control, and Configuration Management. Preclosure assessments, peer reviews, and technical assessment reviews are conducted by the Systems Branch.

4.7 PROJECT AND OPERATION CONTROL DIVISION

The Project Operations and Control Division provides Project management services and support to the PM and is responsible for grants and the business management and contracts management functions for the Project. These services are provided by two Branches: The Operations Control Branch and the Project Control Branch.

4.7.1 Operations Control Branch

The Operations Control Branch manages various activities that address the accumulation and analysis of data and information covering a wide range of subjects, including socioeconomic, environmental, transportation, meteorological monitoring, and radiological monitoring. This branch supports the Project by maintaining current information in such areas as land access and acquisition, mining claims, Payments-Equals-to-Taxes, permits, and Native Americans.

Responsibilities include cognizance of the several acts and regulations that impact the environmental aspects of the Project, such as the Safe Drinking Water Act, NEPA regulations, and the Resource Conservation Recovery Act (RCRA). This branch is responsible for interfacing with all local, state, and federal environmental regulatory agencies.

4.7.2 Project Control Branch

The Project Control Branch manages the development, maintenance, and operation of Project Management Control systems that are required for effective management of the Project. These activities include planning and scheduling, budgeting and cost control, baseline change control, preparation of Project management documents and reports, records management system, information management systems, Work Breakdown Structure (WBS), work authorization, and Project training.

The Project Control Branch reports current information to the PM on the status of the Project and the performance of the Project Participants. The Project Control Branch is the Project management interface with the Site Office with regard to Project control activities.

4.8 REQUIREMENTS ANALYSIS DIVISION

The Requirements Analysis Division executes the authority of the ADGD/PM at DOE Headquarters (HQ). This division represents the OGD/Project at HQ and provides a liaison for interaction and coordination with other OCRWM offices. Other responsibilities of the requirements Analysis Division include:

1. Provides technical interface for the OGD/Project Office with regulatory and program oversight groups such as the NRC, the Advisory Committee for Nuclear Waste (ACNW), and the TRB. This includes the implementation of NEPA.

2. Conducts programmatic and technical analyses related to requirements and issues for geologic disposal.

3. Provides programmatic and technical support to the Office of Strategic Planning and International Programs in interactions with the Nuclear Waste Negotiator for activities related to geologic disposal and for coordination and integration of international activities.

4. Develops implementation policy, conducts planning, and provides guidance for the disposal program.

5. Provides programmatic and technical support to the Yucca Mountain Site Characterization Project for development and a review of responses to comments on site characterization.

6. Provides programmatic and technical support as a participant in specific activities being conducted by Yucca Mountain Site Characterization Project task groups (e.g., prioritization of surface-based testing and development of site suitability methods, evaluation of alternatives for the underground exploratory facility).

7. Coordinates preparation of progress reports on the scientific investigation program for the OGD/Project Office.

8. Provides programmatic and technical support for study plan development by participating in Yucca Mountain Site Characterization Project review of these plans.

9. Provides programmatic and technical support for independent reviews of technical documents and for technical assessment reviews as requested by the ADGD/PM.

10. Provides OGD/Project Office input to DOE-HQ programmatic documents such as the Mission Plan, Mission Implementation Plan, and the Annual Report to Congress.

11. Provide an interface for work performed by the M&O contractor and coordinate work and reporting relative to the scientific investigation program.

4.9 YUCCA MOUNTAIN PROJECT QUALITY ASSURANCE DIVISION DIRECTOR (QADD)

The Yucca Mountain Project QA Division reports to the Director, OQA, and has the responsibility to direct and control QA functions as delegated by the Director, OQA. As a minimum, these delegated responsibilities include:

1. Overview of QA activities by conducting internal/external verifications and selectively participating in verification activities such as assessments, readiness reviews, audits or surveillances, and issuance of schedules for audits/surveillances.

2. Review the QA program descriptions (including revisions to and interpretations thereof) of OGD/Project Office-managed participants and other affected organizations, for compliance with established QA policies and requirements, develop recommendations relative to acceptance and submit recommendations to ADGD/PM for action.

3. Review OGD/Project Office procurement documents for inclusion of QA requirements.

4. Ensure development and implementation of a QA indoctrination program for all Project OGD/Project Office personnel.

5. Establish and maintain the indoctrination and training requirements for YMP QA Division personnel.

6. Establish and maintain a QA information system to facilitate effective communication for the status of the QA program; status of resolution of issues, trends, and conditions (including significant) adverse to quality; and a summary of management overview results.

7. Manage the YMP QA Division staff and OGD/Project Office QA direct-support contractors.

8. Provides resolution of quality related issues and problems that affect or potentially affect Program activities.

9. Ensure that YMP QA Division personnel who perform activities affecting quality are qualified by experience, education and training to perform assigned tasks.

10. Serves as primary interface for inquiries from the local NRC representative, State representative, and local government representatives on QA program issues.

11. Provides support to Program participants as required in implementation of their QA Programs.

12. As necessary, ensures implementation of QMP-01-02, Stop Work, for quality related issues.

4.10 SITE MANAGER

The Site Manager is responsible for coordinating all field activities, as directed by the ADGD/PM and cognizant DDs. During Site Characterization, the primary responsibility of the Site Manager is to coordinate the field work and day-to-day activities of Project Participants. Additionally, the Site Manager is delegated authority as Contracting Officer Representative (COR) for the construction contractor.

4.11 MATRIX AND SUPPORT STAFF

In addition to the DOE direct-reporting personnel, the OGD/Project Office uses direct support personnel from two contractors, Science Applications International Corporation (SAIC) and MAC Technical Services Company (MACTEC). The OGD/Project Office also uses personnel matrixed from DOE/NV and DOE/NV Contractors. Matrix and support staff conduct work in accordance with the OCRWM QAPD and supporting procedures.

4.11.1 Science Applications International Corporation (SAIC)

SAIC provides broad technical, operational, and managerial support to the OGD/Project Office. Although OGD/Project Office retains sole responsibility and authority for authorization of work and direction of all Project Participants, SAIC is responsible for the management and integration of all authorized activities performed by Project Participants on the Project. The SAIC effort involves both the direct provision of technical, scientific, and institutional expertise and the direct support to the Project Office for management and integration of support provided by all Project Participants in connection with planning, design, field investigations, laboratory work, construction, regulatory licensing, and QA activities related to the establishment of high-level nuclear waste repository pursuant to the NWPAA, at Yucca Mountain.

4.11.2 MAC Technical Services Company (MACTEC)

MACTEC provides specialized direct support in QA, Project management, and other management services to the Project, as directed by the ADGD/PM and other OGD/Project Office personnel.

4.11.3 DOE/NV

DOE/NV provides matrixed services in Health Physics and Environmental, Safety and Health, Contracts, Property Management, Finances, Legal Services, Personnel Services, Labor Relations, Information Services, and Public Affairs.

4.11.4 DOE/NV Contractors

DOE/NV Contractors provide certain matrix services to the OGD/Project Office and Site Office. Examples of such services are procurement, logistical support, and microfilming and archival of records.

5.0 PROCEDURE

5.1 DELEGATION OF WORK

Activities associated with the responsibilities described in this procedure may be delegated to designees if the delegation is documented.

5.2 RESOLUTION OF DISPUTES

Differences of opinion involving QA issues at a given organizational level are brought to the attention of management at that level, and if not resolved, are elevated progressively to the Director, OQA, and if necessary, to the Director, OCRWM (See Figure 1).

6.0 REFERENCES

NOTE: Refer to the latest revision of the documents listed below unless otherwise stated.

6.1 REQUIREMENTS DOCUMENTS

OCRWM Quality Assurance Requirements Document, DOE/RW-0214

OCRWM Quality Assurance Program Description Document, DOE/RW-0215

Program Glossary

Yucca Mountain Project Management Plan, YMP/90-25

6.2 INTERFACE DOCUMENTS

QMP-17-01, Records Management: Record Source Implementation

Nuclear Policy Act, as amended

7.0 FIGURES AND ATTACHMENTS

Figure 1, Resolution of QA Disputes Flowchart

Attachment 1, Office of Geologic Disposal/Yucca Mountain Project Office Organization Chart

8.0 QA RECORDS

Copies of this procedure, including revisions, shall be maintained as QA Records in accordance with QMP-17-01, Records Management: Record Source Implementation.

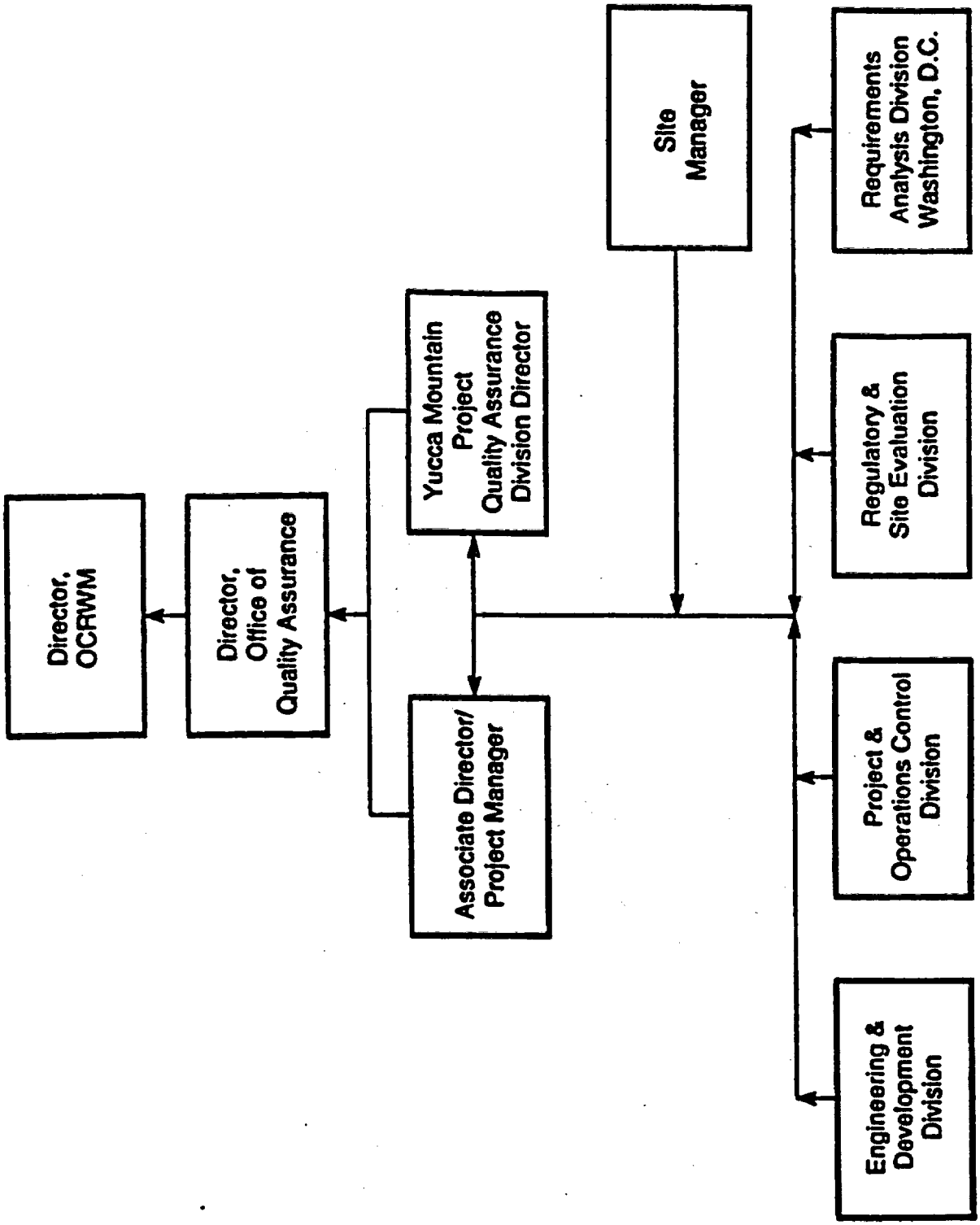
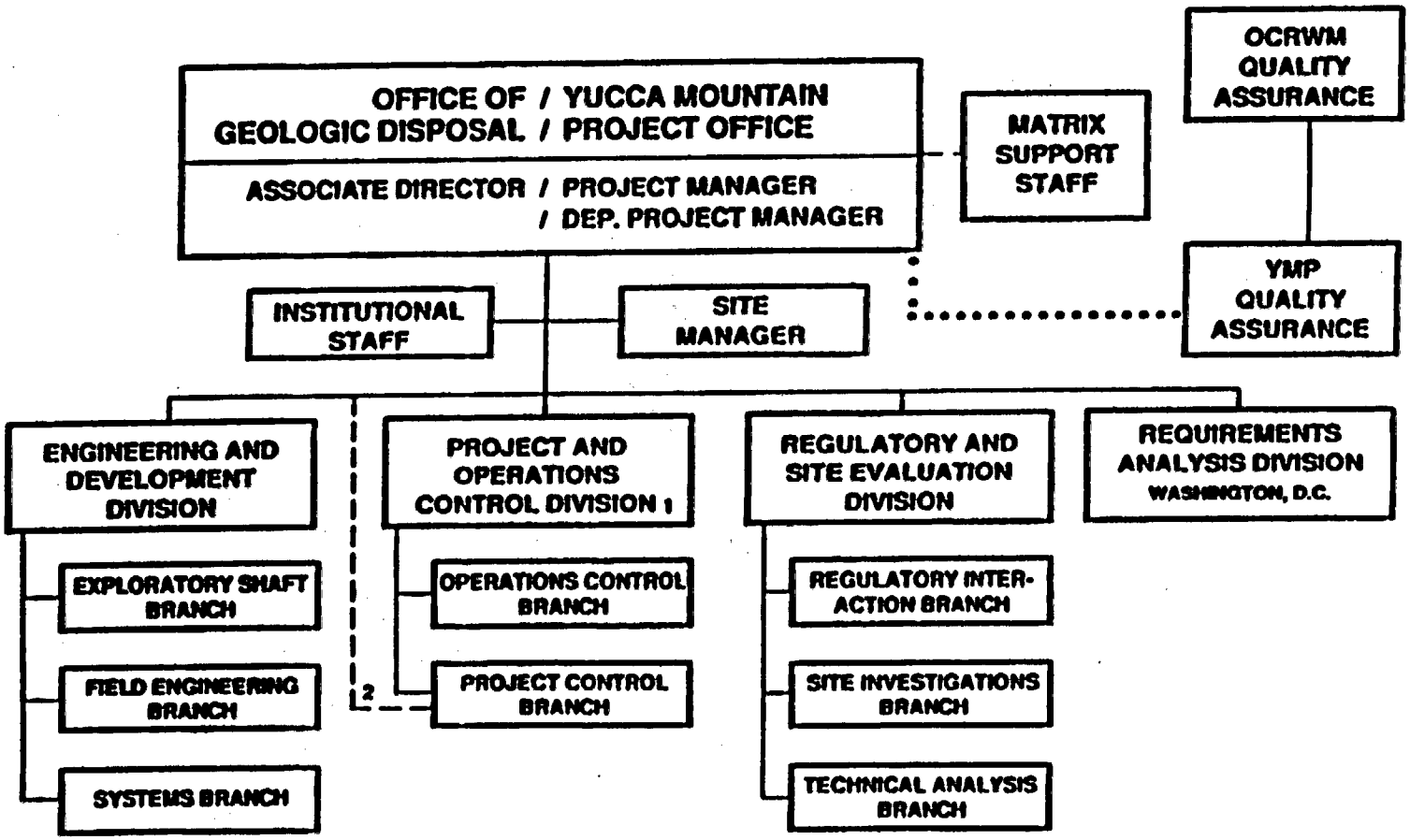


Figure 1 - Resolution of QA Disputes Flowchart

OFFICE OF GEOLOGIC DISPOSAL



1 INCLUDES ADDITIONAL BUSINESS MANAGEMENT FUNCTION
2 TEMPORARY REPORTING LINE PENDING APPROVAL OF REQUEST FOR REORGANIZATION

Attachment 1 - Yucca Mountain Project Office Organization Chart