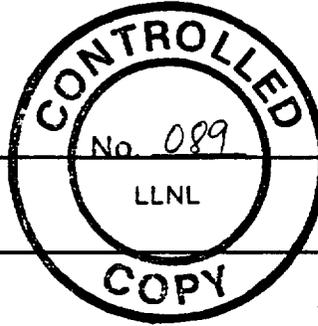


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Lawrence Livermore National Laboratory

YUCCA MOUNTAIN PROJECT



Subject: ORGANIZATION

Training Required: Yes  No   
Comment:

Approved by: W. S. Colonne 10/30/91  
Date  
Yucca Mountain Project Leader

Approved by: [Signature] 10/30/91  
Date  
YMP Quality Assurance Manager

REM 10/21/91

1.0 QUALITY ASSURANCE RESPONSIBILITIES

The LLNL-Yucca Mountain Project (LLNL-YMP) is responsible for establishing and executing a Quality Assurance Program Plan (QAPP). As appropriate the LLNL-YMP delegates to others, such as contractors, agents, or consultants, the work of establishing and executing the Quality Assurance (QA) program, or a portion thereof, but the LLNL-YMP retains complete responsibility. Any delegation for executing the QA Program Plan requirements is documented. The organizational structure, lines of communication, authority and duties of persons and organizations performing activities affecting quality are clearly established and delineated in writing. Activities affecting quality include both performing functions of attaining quality objectives and the QA functions. While the line organization is responsible for performing these activities properly, the QA organization verifies the proper performance of work through implementation of appropriate QA measures.

2.0 QA FUNCTIONS

The QA functions include assuring that an appropriate QA program is established, executed effectively, and verified by checking, auditing, surveillance and inspection, and assuring that activities affecting the quality functions are performed correctly. The persons and organizations performing QA functions have sufficient authority, access to work areas, and organizational freedom to identify quality problems; initiate, recommend, or provide solutions through designated channels; verify implementation of the solutions; and assure that further processing, delivery, installation, or use is controlled until proper disposition of a nonconformance, deficiency, or unsatisfactory condition occurs. This includes the ability to stop (or cause to be stopped) unsatisfactory work through established channels. Such persons or organizations have direct access to responsible management at a level where appropriate action can be effected and report to a management level at which the required authority and organizational freedom are provided, including sufficient independence from cost and schedule.

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## 2.1 DEDICATED QA POSITIONS

The person responsible for directing and managing the overall LLNL-YMP QA program is identified and has appropriate organizational position, responsibilities, and authority to exercise proper control over the QA program. This person has appropriate management and QA knowledge and experience, is at the same or a higher organization level as the highest line manager responsible for performing activities affecting quality, and is sufficiently independent from cost and schedule. Personnel in this position are responsible for approval of (1) QAPPs, changes thereto, and interpretations thereof and (2) implementing procedures and all changes thereto. This position has effective communication channels with other senior management positions. Personnel in this position have the responsibility and authority to verify the adequacy and effectiveness of QA plans, requirements, and QA program implementation by the LLNL-YMP and its subordinate organizations. Full-time dedicated QA positions are established by the LLNL-YMP. The LLNL-YMP Quality Assurance Manager and personnel considered "full-time dedicated" are not assigned duties that prevent full attention to QA responsibilities or conflict with the reporting and resolution of QA issues and problems.

## 2.2 AUTHORITY

**Allegations of inadequate quality shall be resolved in accordance with policy guidance and requirements specified by the Yucca Mountain Site Characterization Project Office (YMPO).**

## 2.3 ORGANIZATIONAL STRUCTURE

**Figure 1.0.1 illustrates the organizational relationship of the Energy Program Leader, the LLNL-YMP Leader, and the Quality Assurance Manager. The organizational structure of the LLNL-YMP will be depicted on organization charts within the LLNL-YMP Quality Procedures Manual.**

The Energy Program Leader delegates responsibility for meeting the YMP's scientific and quality assurance requirements to the LLNL-YMP Leader.

The LLNL-YMP Leader is responsible to the Yucca Mountain Site Characterization Project Manager to assure that the Project activities are performed to a QAPP and that implementing procedures are consistent with the QAPP.

**The LLNL-YMP Leader and the QA Manager report directly to the Office of the Energy Program Leader.**

The LLNL-YMP Leader may delegate responsibility for fulfilling technical assignments to Technical Area Leaders, administrative tasks to a Project Administrator and Technical Administrator, and fiscal management tasks to a Resource Planning and Control Manager. The YMP Leader may also delegate management and supervisory responsibilities to Deputy, Associate, or Assistant Project Leaders.

Technical Area Leaders assign Task Leaders to carry out specific responsibilities. Task Leaders are assisted by Principal Investigators and technical staff.

Integration of work performed by more than one Task Leader within a single technical area occurs at the Technical Area Leader level.

Coordination of work performed across technical area boundaries occurs at the LLNL-YMP Leader level.

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The persons assigned QA functions have the required authority and organizational freedom to perform these functions.

### 3.0 QUALITY ASSURANCE PROGRAM PLAN

The Quality Assurance Program Plan (QAPP) applies to all items and activities affecting quality. The organizational structure and the responsibility of assignments are clearly established to assure that certain results, as described below, are obtained.

#### 3.1 ACHIEVEMENT AND MAINTENANCE OF QUALITY

Quality is achieved and maintained by those who have been assigned responsibility for performing work.

#### 3.2 VERIFICATION

Quality achievement is verified by persons or organizations not directly responsible for performing the work. Verification of conformance to established requirements (acceptance) is accomplished by individuals or groups within the QA organization unless specifically exempted elsewhere in this document.

### 4.0 MULTIPLE ORGANIZATIONS

If more than one organization is involved in the execution of activities affecting quality, then the responsibility and authority of the LLNL-YMP and each other organization is clearly established and documented.

#### 4.1 DOCUMENTATION OF INTERFACES

External interfaces between the LLNL-YMP and other organizations and the internal interfaces between organizational units of the LLNL-YMP and changes thereto are documented. All interface responsibilities are defined and documented. Interfaces between the LLNL-YMP and the YMPO and between the LLNL-YMP and other YMP participating organizations are described in the implementing procedures to the QAPP, by **Interface Agreements**, and by **YMPO procedures**. From an overall standpoint, these interfaces are exchanges of technical requirements of work to be performed and liaison until completion of work. The YMPO specifies the inter-participant implementing controls. The LLNL-YMP implementing procedures describe the methods of conducting inter-organizational interfaces.

The LLNL-YMP organizational structure for executing the QA programs is described in the LLNL-YMP **Quality Procedures Manual**. The LLNL-YMP Leader is responsible to the **Yucca Mountain Site Characterization Project Manager** to assure that the Project activities are performed to a QAPP and implementing procedures that are consistent with YMPO's QA Requirements Documents.

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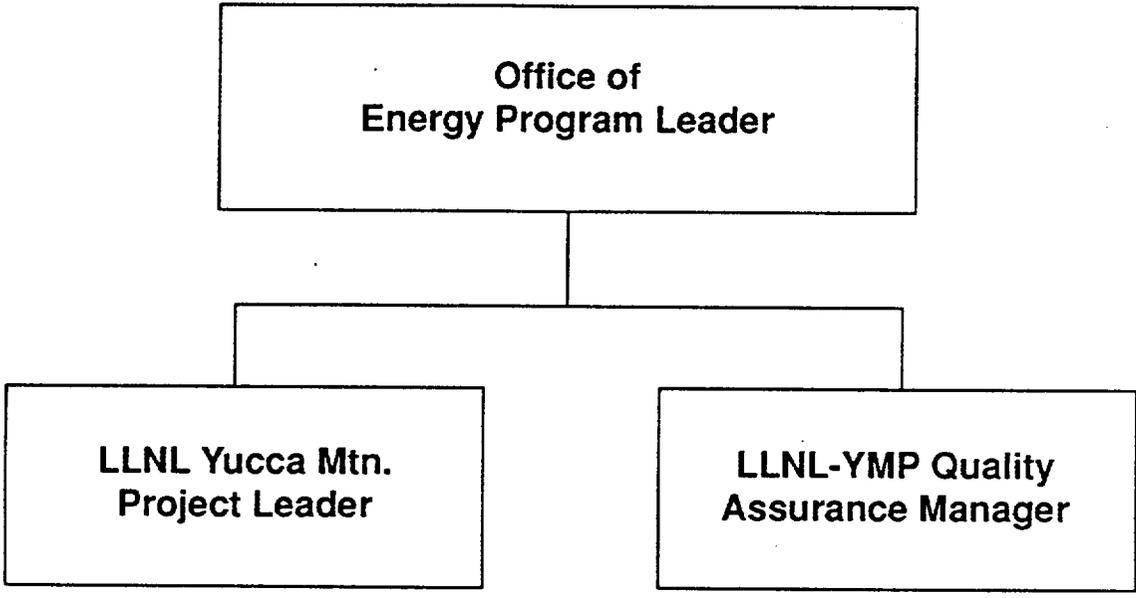


Figure 1.0.1