

YMP-007
2/8/91

**YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT
INTERIM CHANGE NOTICE**

ICN No.: 1
Page 1 of 1

Title:
CONFIGURATION MANAGEMENT

No.:
AP-3.6Q

Rev. 0

Effective Date:
4/24/91

REQUIRED CHANGE(S): MAJOR MINOR (only PCB Manager approval required)

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6.0 REFERENCES

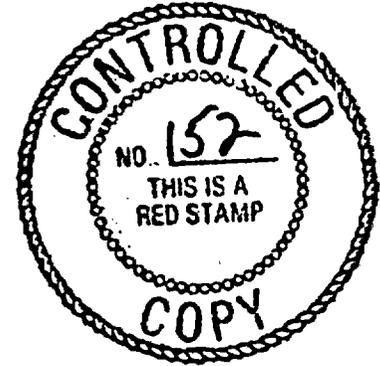
Delete: Project AP-1.7Q, Records Management.

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8.0 RECORDS

Delete: Project AP-1.7Q, Records Management.

Add: in accordance with appropriate Records Management Procedures:



INSTRUCTIONS:

1. Insert this approval page at beginning of AP-3.6Q
2. Replace page 13 and 14 with attached ICN pages 13 and 14

REASON FOR CHANGE (CAR, NCR, SDR, or other deficiency or commitments)

AP-1.7Q Cancelled.

APPROVAL

PROJECT MANAGER

N/A

N/A

Signature

Date

DIRECTOR OF QUALITY ASSURANCE

N/A

N/A

Signature

Date

(OTHER, AS REQUIRED)

N/A

N/A

Signature

Date

PCB MANAGER (Minor ICNs only) *4/2/91*

Vincent F. ...

Signature

Date

4/12/91

TRAINING REQUIRED

YES N/A

NUMBER OF DAYS REQUIRED FOR TRAINING 0

COMMENTS: *No training required.*

Gary A. Mansur

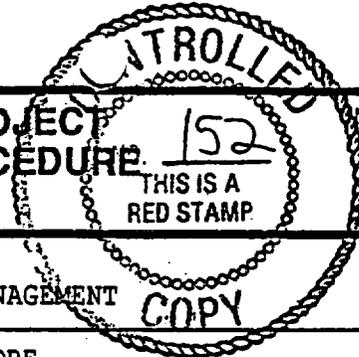
Training Officer/Training Manager

4/15/91

Date

**YUCCA MOUNTAIN PROJECT
ADMINISTRATIVE PROCEDURE**

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AP-3.6Q CONFIGURATION MANAGEMENT

1.0 PURPOSE AND SCOPE

1.1 This procedure establishes requirements and instructions for the optimal management of Yucca Mountain Project (here after referred to as the Project) configuration items (CIs) and documents. This procedure defines responsibilities, requirements, and processes for the following functional areas:

1. Configuration identification of Project CIs.
2. Configuration control of changes to CIS and configuration identification documents.
3. Establishment and maintenance of the Project technical baseline.
4. Configuration status accounting of CIs and configuration identification documents.
5. Configuration auditing of CIs and configuration identification documents.

1.2 SCOPE

This procedure establishes requirements and processes for proposing incorporation of configuration identification documents into the Project technical baseline, for proposing changes to Project configuration identification documents already in the Project technical baseline, and for the systematic evaluation, coordination, documentation, traceability, audit, status recording, reporting, and tracking of CIs and their associated documents during the life of the Project. Project technical baseline documents will be listed in the Project Change Control Board (CCB) Register. The Project CCB Register identifies all documents controlled by the CCB, whether they are in the Project technical baseline or not. Where configuration identification is established in the form of technical documentation, provisions are made for control of pending, approved, and implemented changes. The past and current configuration of CIs may be constructed from baselines and changes therein.

2.0 APPLICABILITY

This procedure applies to the U.S. Department of Energy (DOE) Yucca Mountain Project Office (Project Office) and the participating organizations that are responsible for CIs and their associated documents.

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	Supersedes	QA Manager <i>James Blaylock</i> 1/17/89		

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3.0 DEFINITIONS

3.1 CONFIGURATION

A configuration is the functional and/or physical characteristics of hardware or software, as set forth in technical documentation and achieved in a product. (DOE 4700.1)

3.2 CONFIGURATION AUDIT

A configuration audit is the checking of a system or item for compliance with configuration requirements. Configuration audits ensure that all components or elements of the Project technical baseline interface physically and functionally.

3.3 CONFIGURATION CONTROL

Configuration control is the systematic evaluation, coordination, approval or disapproval, and implementation of all approved changes in the configuration of a CI after formal establishment of its configuration identification.

3.4 CONFIGURATION IDENTIFICATION

Configuration identification is the technical documentation that prescribes requirements for or depicts a CI in the technical baseline, and the process for review and approval/acceptance of that documentation.

3.5 CONFIGURATION IDENTIFICATION DOCUMENT

A configuration identification document is a document that prescribes the requirements for or depicts a configuration item.

3.6 CONFIGURATION INFORMATION SYSTEM (CIS)

The CIS is an information system that includes the status of the current project technical baseline, including pending and approved changes. The CIS consists of both automated and manually maintained data sets that are available on remote computer terminals and printed reports.

3.7 CONFIGURATION ITEM (CI)

A CI is an aggregation of hardware/software, or any of its discrete portions, satisfies an end use function and is designated by the Project CCB for configuration management.

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3.8 CONFIGURATION MANAGEMENT

Configuration Management is a discipline applying technical and administrative direction and surveillance to (1) identify and document the functional and physical characteristics of a configuration item, (2) control changes to those characteristics, and (3) record and report the processing and implementation status of changes, including audits of the configuration.

3.9 CONFIGURATION STATUS ACCOUNTING

Configuration status accounting is the recording and reporting of the status of the approved technical baseline and proposed changes to it from submittal, through disposition implementation.

3.10 INTERFACE CONTROL DOCUMENTATION (ICD)

Interfaces are to be specified through requirements, criteria, allocations, limits in requirements documents, general arrangement drawings, systems drawings, specifications, or specific interface control documents (ICD). ICDs specifically identify and control physical, parametric, and functional interfacing information. Normally, physical interfaces will be controlled by drawings, whereas functional and parametric interfaces will be controlled through specification-type ICDs.

3.11 ISSUE

Issue is accomplished when the content of a document is approved by the cognizant authority for its intended use.

3.12 RELEASE

Release is accomplished when an issued document is approved or directed for use by the cognizant authority for the document's intended purpose. It is often necessary to issue a document such that the information in it is available for activities such as planning or training prior to the document being released as effective for its intended purpose.

3.13 SYSTEM INTERFACE CONTROL LEVELS

System interface control levels are specific hierarchical levels established for control of system interfaces. Exhibit 1 lists the approval authority for system interface control levels.

3.13.1 Level A interfaces for the Program are interfaces between the Waste Management System (WMS) and other external systems.

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3.13.2 Level B interfaces for the Program are interfaces between the WMS elements (Repository, Transportation, and Monitored Retrievable Storage facility).

3.13.3 Level C interfaces for the Project are interfaces between the Geologic Repository, Waste Package, Exploratory Shaft Facility, and Site systems.

3.13.4 Level D interfaces for the Project are interfaces between Project subsystems.

3.14 TECHNICAL BASELINE

A technical baseline is a configuration identification document or set of documents formally designated and approved at a specified time (the time need not be the same for each document in the set). Technical baselines plus approved changes to those baselines constitute the current configuration identification (DOE 4700.1, Attachment 3, 3/6/87). The technical baseline is further subdivided into the following time-phased parts:

3.14.1 The Functional Requirement Baseline is the initial technical baseline, and is based on the functional requirements of the end product that are derived from Project needs (DOE 4700.1, Chapter III, 3/6/87).

3.14.2 The Technical Requirements Baseline is the basis for preliminary (Title I) design, and is established at the completion of conceptual design. It consists of the documentation that describes the selected design approach and specifies its design and performance requirements (DOE 4700.1, Chapter III, 3/6/87).

3.14.3 The Design Requirements Baseline is the collection of documentation that defined the preliminary (Title I) design. It is established at the completion of preliminary (Title I) design, and is the basis for the definitive (Title II) design (DOE 4700.1, Chapter III, 3/6/87).

3.14.4 The Product Configuration Baseline is established when definitive (Title II) design is complete, and is the input for Title III services. It describes all the details of the design necessary for fabrication, assembly, construction, installation, and checkout of the facilities and equipment. It is composed of the specifications, drawings, and quality assurance provisions. After construction or manufacture, the documentation is updated to reflect the as-built or as-manufactured configuration. This updated product configuration baseline is the basis for in-service changes, and is maintained current throughout the operating life of the facility and equipment.

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3.15 TRACEABILITY

Traceability is the property of a hierarchical set of information elements that permits, given any key element in the set, the ability to identify other key elements that are related to the given element. Traceability in sets of information such as design requirements and design data permits traceability from requirements to data and from data to requirements.

3.16 TRACKING INFORMATION

Tracking information is the status of events that have an established relationship, and other information supporting that status (e.g., dates, degree of completion, estimated rate of progress, estimated completion, assumptions, impacts, controlling events or conditions, etc).

4.0 RESPONSIBILITIES

4.1 YUCCA MOUNTAIN PROJECT OFFICE (PROJECT OFFICE), PROJECT AND OPERATIONS CONTROL DIVISION DIRECTOR

The Project and Operations Control Division Director is responsible for the following:

1. Maintaining and managing the Project configuration management process.
2. Scheduling Project configuration audits, reviewing audit results and initiating any required corrective action.
3. Directing the conduct of a Physical Configuration Audit (PCA) before Project acceptance of a product configuration into the Project technical baseline, and initiating any required corrective action.
4. Directing the assignment of CI numbers.

4.2 TECHNICAL PROJECT OFFICERS (TPOs)

Participating organization TPOs are responsible for the following:

1. Ensuring compliance by their subcontractors, vendors, and suppliers to the extent their subcontractors, vendors, and suppliers control configuration identifier numbers.
2. Ensuring that technical documentation under their cognizance is referenced to the appropriate CI number.

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3. Maintaining the integrity of CI identification by ensuring that only authorized identification numbers are used.

4.3 TECHNICAL PROJECT OFFICERS RESPONSIBLE FOR DESIGN

TPOs, who are also responsible for design inputs or design outputs, are responsible for the following:

1. Establishing, maintaining, and implementing a system for control of the design input or design output work that is being prepared for Project Office acceptance for incorporation into the Project Baseline or controlled information bases.
2. Establishing and preserving change history for design input and/or design output work through records resulting from internal configuration control activities.
3. Developing internal configuration control and reporting systems for changes to configuration identification documents not in the Project CCB Register.
4. Developing, implementing, and maintaining an information system for the recording and reporting of the status of configuration items and associated changes by the participating organizations.
5. Developing internal configuration auditing functions and conducting data base audits and CM audits.
6. Assigning unique identifying numbers to items and documents (e.g., requirements documents, design documents, specifications, and drawings), and ensuring that these identifying numbers are referenced to the applicable CI numbers.
7. Initiating Change Requests (CRs) for the addition of configuration identification documents to the Project CCB Register.

4.4 TECHNICAL AND MANAGEMENT SUPPORT SERVICES CONFIGURATION MANAGEMENT ORGANIZATION

The T&MSS Configuration Management Organization (CMO) manager is responsible for the following:

1. Assigning Project-level CI numbers to those physical items that are based on the physical item structure break-out and computer software applications, as described in Project Baseline documentation. The Project CCB Chairperson has approval authority for additions to the Project technical baseline.

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2. Assigning CR numbers.
3. Reporting monthly to the Project CCB Chairperson and members the status of all proposed changes to CIs and associated documents listed in the Project CCB Register.
4. Providing tracking information on all proposed changes to the Project technical baseline from CR number issuance through CR submittal, disposition, and implementation.
5. Developing, implementing, and maintaining the Project CIS as described in this document.
6. Developing and maintaining a cross-reference index, identifying relationships between CIs and Level C and higher ICDs.
7. Conducting and reporting the results of configuration audits of participant configuration management systems to the Project Office as directed by the Project and Operations Control Division Director.
8. Initiating semiannual configuration data base audits of the CIS to verify the data against corresponding documentation.

4.5 CONFIGURATION AUDIT TEAM

Participant organizations will provide configuration audit teams as directed by the Project and Operations Control Division Director. The configuration audit team will perform the following activities:

1. Plan configuration audit and prepare audit tools.
2. Conduct configuration audit entrance meeting.
3. Conduct configuration audit.
4. Prepare preliminary finding and concerns.
5. Conduct configuration audit exit meeting.
6. Prepare final report.

4.6 PARTICIPANT QUALITY ASSURANCE (QA) ORGANIZATIONS

Participant QA organizations have the responsibility to conduct QA audits of their organization's configuration management functions. QA audits are not configuration audits.

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5.0 PROCEDURE

5.1 CONFIGURATION IDENTIFICATION

Exhibit 2 is a flowchart that defines the steps, information flow, and control direction in the configuration identification process.

5.1.1 Project Baseline Identification

Configuration identification of baselines is established by CCB approval of Class 2 CRs incorporating configuration identification documents into the Project technical baseline, and by approval of the CRs that change these items and documents in accordance with AP-3.3Q, Change Control Process. The cover sheet, revision record page, or revision control block of issued baseline documents shall identify, as a minimum, the issuing organization document identifier, revision identifier, configuration item number (as applicable), and issue date.

5.1.2 Interface Identification

Interface control documentation shall be used to identify interfaces between configuration items and to specify the primary responsibility for coordination between participants and/or government agencies. The ICDs are controlled documents.

5.1.2.1 Interface identification shall be described in the specification or drawing for a CI, and shall include the functional and physical interface characteristics between that CI and other CIs, as well as the major components within the CI. When these interfaces involve different participants, the interface definition shall also be delineated in separate ICDs. The ICDs shall reference the applicable CI number(s), document number(s), and affected participants.

5.1.3 Requirements Traceability Identification

Technical baseline documents shall provide for identifying like and related requirements (functional, technical, design, and product). This will establish traceability of these requirements through all levels of the documentation of the Project Baseline, and to their CIs.

5.1.3.1 To Be Determined Log

Data that are known to be required in configuration identification documents but are not yet available (i.e., to be determined - TBD) shall be identified by the originating participant. The TBD data will be listed in the TBD Log contained in the preface of the affected document, directly after the table of contents and directly before any change pages. The scheduled

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TBD data shall be tracked until development, resolution, and acceptance of these data is completed. The scheduled resolution, the name of the organization responsible for the resolution, and the section or paragraph of the affected document(s) shall be tracked in a TBD Log contained in the document. Exhibit 3 of this procedure is a sample TBD Log sheet.

5.1.3.2 Data to be Verified/Validated Log

Data that is important to safety and waste isolation design and/or that has not been (1) verified, or (2) validated in accordance with NUREG-1298, Qualification of Existing Data for High-Level Nuclear Waste Repositories, or (3) is dependent on software that has not been validated, will be identified and tracked in the same manner as TBD data. Exhibit 4 of this procedure is a sample Data to be Verified/Validated Log sheet.

5.1.4 Configuration Item Identifiers

Configuration item identifiers are numbers assigned to represent a CI or a discrete part of a CI, and are used for configuration traceability and tracking purposes. A CI number is a configuration item identifier assigned to a CI by the T&MSS CMO. CI numbers are based on the physical item structure break-out and software applications as defined in requirements documents in the Project Baseline. Traceability between CI numbers and associated documents shall be established through internal references within the documents or through the CI cross-reference index. Such indexing shall facilitate traceability from documentation to their associated CIs and from a CI to all documentation describing it. Configuration identifiers other than CI numbers (e.g., part numbers, serial numbers) shall be assigned by the participating organizations performing design activities. CI numbers and other identifiers shall be assigned and meet the requirements of Appendix A, "Configuration Item Identifiers."

5.2 CONFIGURATION CHANGE CONTROL AND CHANGE TRACEABILITY

Exhibit 5 is a flow chart that defines the information flow direction in the configuration change process.

5.2.1 Configuration Control

Configuration control is accomplished at the Program, Project, and Project participant levels. Project-level control is established over the configuration identification documents in the Project Baseline in accordance with AP-3.3Q, Change Control Process. Project participant control processes are defined in internal procedures that provide control of the design input or design output that has not yet been accepted by the Project for incorporation into the Project Baseline and controlled information bases.

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5.2.1.1 Configuration changes will be issued by the dispositioning authority at the time the disposition is made. Distribution of the contents of approved CRs will be made to facilitate preparation for change implementation.

5.2.1.2 Configuration changes will be released for implementation in accordance with the direction of Project Office or participating organization managers, consistent with plans and schedules for change implementation.

5.2.1.3 The T&MSS CMO shall assemble and display tracking information about proposed changes and approved CRs to facilitate management decisions by the Project Office staff.

5.2.1.4 Project Office and Project participant managers shall manage change implementation in accordance with plans and schedules developed during the change control process and as called for in a Project CCB Change Directive.

5.2.2 ICD Control

ICD control is accomplished at the Program, Project, and Project participant levels. Project-level control will be established over Level C and D system interfaces in accordance with Project interface control administrative procedures. Project participant control responsibilities will be delineated by the same Project interface control administrative procedures.

5.2.3 Change Traceability

Project change control records, established in accordance with AP-3.3Q, Change Control Process, shall provide traceability from the initial Project technical baseline through all approved changes. Project participant change control records shall be established in accordance with participants' internal procedures to provide traceability from the initial Project participant baselines through approved changes until such time as the documentation is accepted into the Project technical baseline.

5.3 CONFIGURATION STATUS ACCOUNTING

Exhibit 6 is a flowchart that defines the steps, information flow, and control direction in the configuration status accounting process.

5.3.1 Configuration Status Recording

Configuration status recording is accomplished at the Project and Project participant levels.

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5.3.1.1 Copies of dispositioned CRs are forwarded to the T&MSS CMO, from which change information about items and documents listed in the Project CCB Register is extracted and entered into the CIS. The CIS provides the ability to:

1. Identify the current approved Project technical baseline documentation.
2. Identify all proposed changes to the Project technical baseline documentation.
3. Identify, in an ICD cross-reference index, relationships between engineering documents that are defined by a Level C ICD. This will facilitate the determination of documents and ICDs potentially affected by a proposed change.
4. Identify, in a CI cross-reference index, all configuration identification documents that describe a CI and all controlled data that affects a CI. This will facilitate the determination of Project Baseline documentation or controlled information base data potentially affected by a proposed change.

5.3.1.2 Participating organizations responsible for design inputs or design outputs shall implement an information system that provides the ability to:

1. Identify the design input or design output documentation under Project participant internal control.
2. Identify all proposed changes to the design input or design output documentation under Project participant internal control.
3. Identify, in an ICD cross-reference index, relationships between engineering documents that are defined by a Level D ICD. This will facilitate the designer's determination of documents and ICDs potentially affected by a proposed change.
4. Identify, in a CI cross-reference index, relationships between engineering documents that describe a CI. This will facilitate the designer's determination of documents and specifications potentially affected by a proposed change.

5.3.2 Configuration Status Reporting

Configuration status reporting is accomplished at the Project and Project participant levels.

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5.3.2.1 The T&MSS CMO shall provide a monthly report of the status of CRs to the Project Office Division Directors and participant TPOs. This report of tracking information, extending from CR submittals through implementations, shall contain the following minimum information:

1. CR identification number.
2. Brief descriptive title of the CR.
3. Individual and organization originating the CR.
4. Project configuration identification documents affected by the proposed change.
5. CI(s) affected by the proposed change.
6. Current status of the proposed change (e.g., approved, disapproved, evaluation).
7. Subsequent action required on the proposed change.
8. Individual or organization responsible for required subsequent action

5.3.2.2 The T&MSS CMO shall provide periodic operational reports of the status of CIs and associated documents in the Project CCB Register to Project Office and Project participant managers.

5.3.2.3 Participating organizations shall provide for internal reporting of configuration status in accordance with internal procedures.

5.4 CONFIGURATION AUDITS

Exhibit 7 is a flowchart that defines the steps, information flow, and control direction in the configuration audit process.

5.4.1 Configuration audits are conducted at the Project level in accordance with this section and Exhibit 7. Configuration audits are conducted at the Project participant level in accordance with internal procedures. The following categories of configuration audits shall be scheduled by the Project and Operations Control Division Director.

5.4.2. CIS configuration audits shall be conducted at intervals not to exceed 12 months, to verify the CIS information against the corresponding documentation. CIS configuration audits may be conducted by T&MSS CMO personnel, or may include independent auditors as directed by the Project and Operations Control Division Director.

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5.4.3 PCAs shall be accomplished, as a minimum, at or near completion of construction service (Title III) to verify the "as-built" configuration. The PCA shall ensure that the CIs match their descriptions in the associated configuration identification documents. For selected hardware and computer software configuration items, a PCA will be performed to establish the Product Configuration Baseline required by DOE Order 4700.1. The purpose of the PCA will be to ensure that hardware or software configuration items match their descriptions/depictions in the technical documentation (specifications, drawings, and listings). Successful completion of the PCA plus approval of the technical documentation will establish the Product Configuration Baseline.

5.4.4 Configuration Audit Planning

The Project and Operations Control Division Director will initiate a configuration audit by selecting appropriate staff and participant support staff for the configuration audit team and appointing a team leader. The configuration audit team will prepare a configuration audit plan on which the configuration audit activities will be based. The configuration audit plan at a minimum will address the following:

1. Purpose and scope of the configuration audit.
2. Resources required for the configuration audit.
3. Schedule of configuration audit activities.

The configuration audit plan will be submitted to the Project and Operations Control Division Director for review and approval before the configuration audit is conducted.

6.0 REFERENCES

DOE 4700.1, Project Management System.

Project Configuration Management Plan, NNWSI/88-4.

Project AP-1.5Q, Issuance and Maintenance of Controlled Documents.

Project AP-3.3Q, Change Control Process.

NUREG-1298, Qualification of Existing Data for High-Level Nuclear Waste Repositories.

Cataloging Handbook, H4, Federal Supply Code for Manufacturers.

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7.0 APPLICABLE FORMS

- Exhibit 1. System Interface Control Level Approval Authority
- Exhibit 2. Configuration Identification Process.
- Exhibit 3. Sample TBD Log Sheet.
- Exhibit 4. Sample Data to be Verified/Validated Log Sheet.
- Exhibit 5. Configuration Control Process.
- Exhibit 6. Configuration Status Accounting Process.
- Exhibit 7. Configuration Audit Process.

8.0 RECORDS

In addition to the documents listed in Section 8.0 of Project AP-3.3Q, Change Control Process, the following documents shall be forwarded to the Local Records Center for processing in accordance with appropriate Records Management Procedures:

- 1. Configuration audit reports.
- 2. Report of corrective actions.
- 3. Configuration audit progress reports.
- 4. Configuration audit status reports.

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**SYSTEM INTERFACE CONTROL LEVEL
APPROVAL AUTHORITY**

LEVEL	APPROVAL AUTHORITY
A	OCRWM Headquarters
B	OCRWM Headquarters
C	Change Control Board
D	Change Control Board

Exhibit 1. System Interface Control Level Approval Authority.

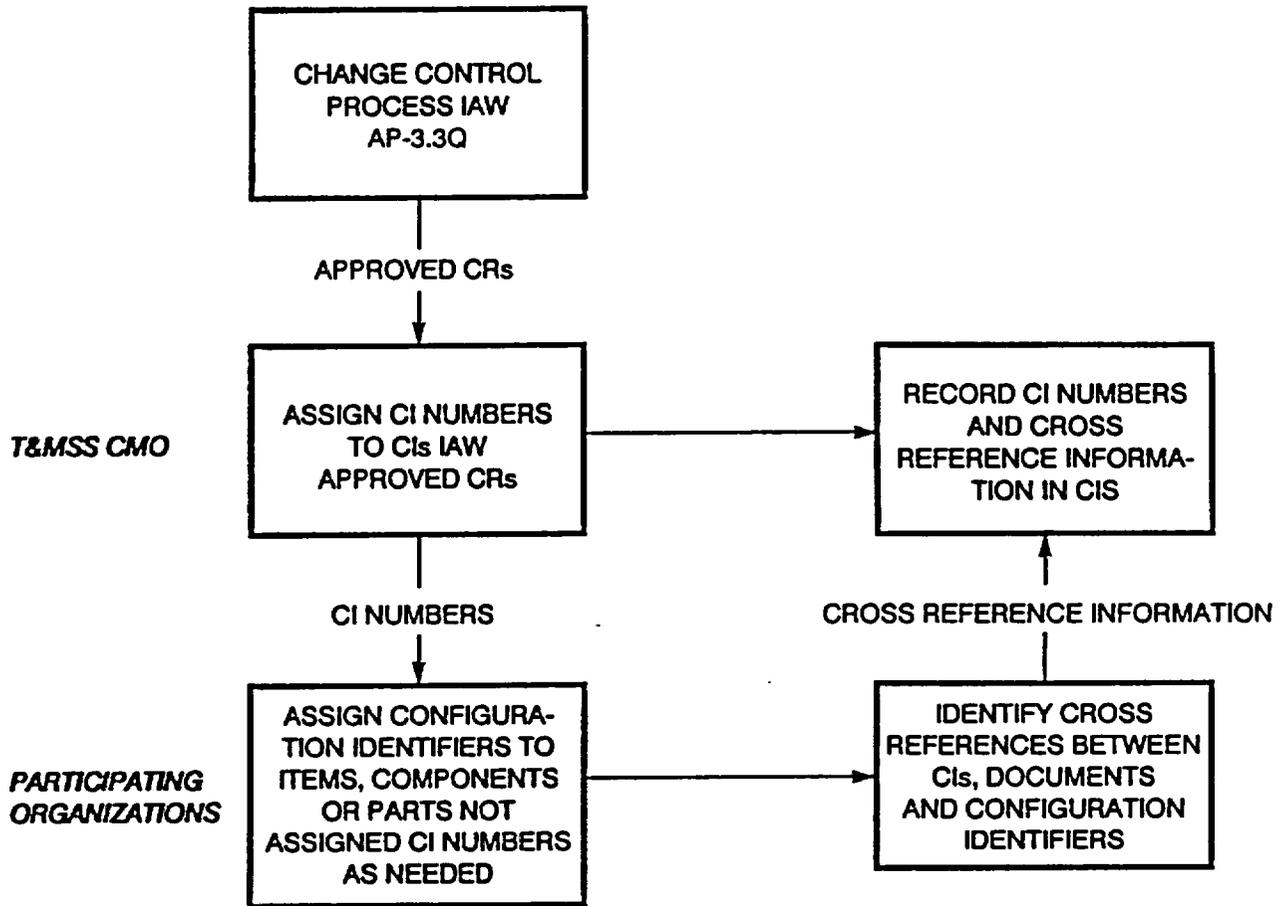
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IAW - IN ACCORDANCE WITH

CONFIGID.005/1-9-89
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Exhibit 2. Configuration Identification Process

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TBD LOG

DOCUMENT/REVISION NUMBER _____

SECTION OR PARAGRAPH	RESPONSIBLE ORGANIZATION	SCHEDULE RESOLUTION DATE	BRIEF DESCRIPTION
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Exhibit 3. Sample TBD Log Sheet.

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DATA TO BE VERIFIED/VALIDATED LOG

DOCUMENT/REVISION NUMBER _____

SECTION OR PARAGRAPH	VERICATION/ VALIDATION ORGANIZATION	VERIFICATION/ VALIDATION SCHEDULE DATE	BRIEF DESCRIPTION
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Exhibit 4. Sample Data To Be Verified/Validated Log Sheet.

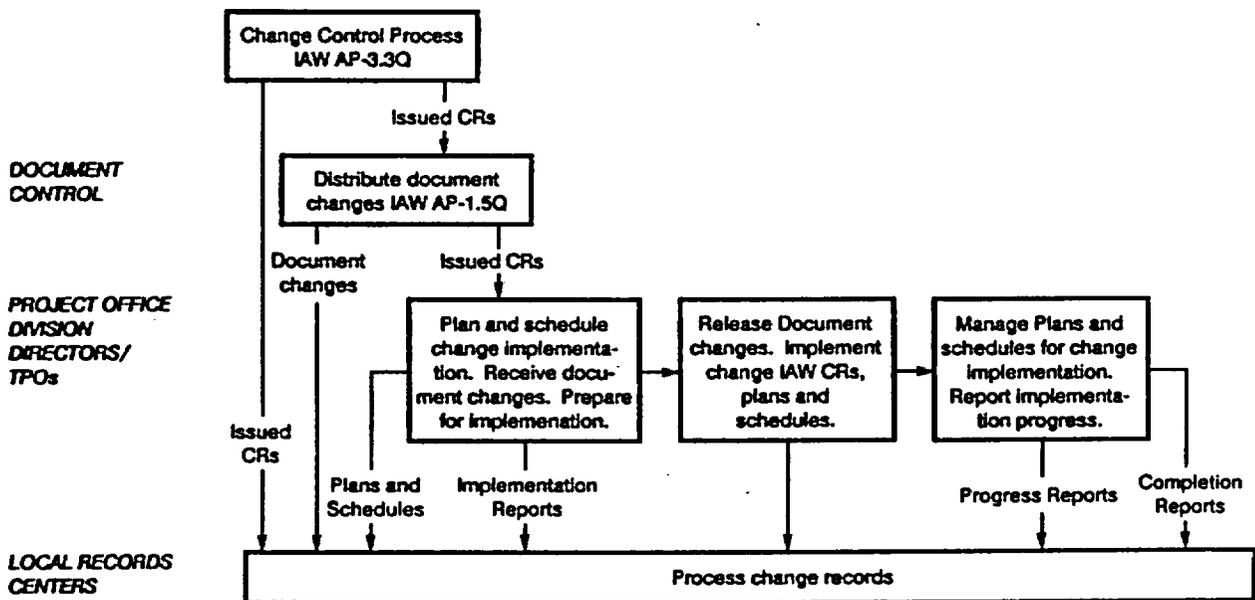
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DOCUMENT CONTROL

PROJECT OFFICE DIVISION DIRECTORS/TPOs

LOCAL RECORDS CENTERS

IAW - In accordance with

CONFCTRL005/1-8-89
AP-3.6Q

Exhibit 5. Configuration Control Process

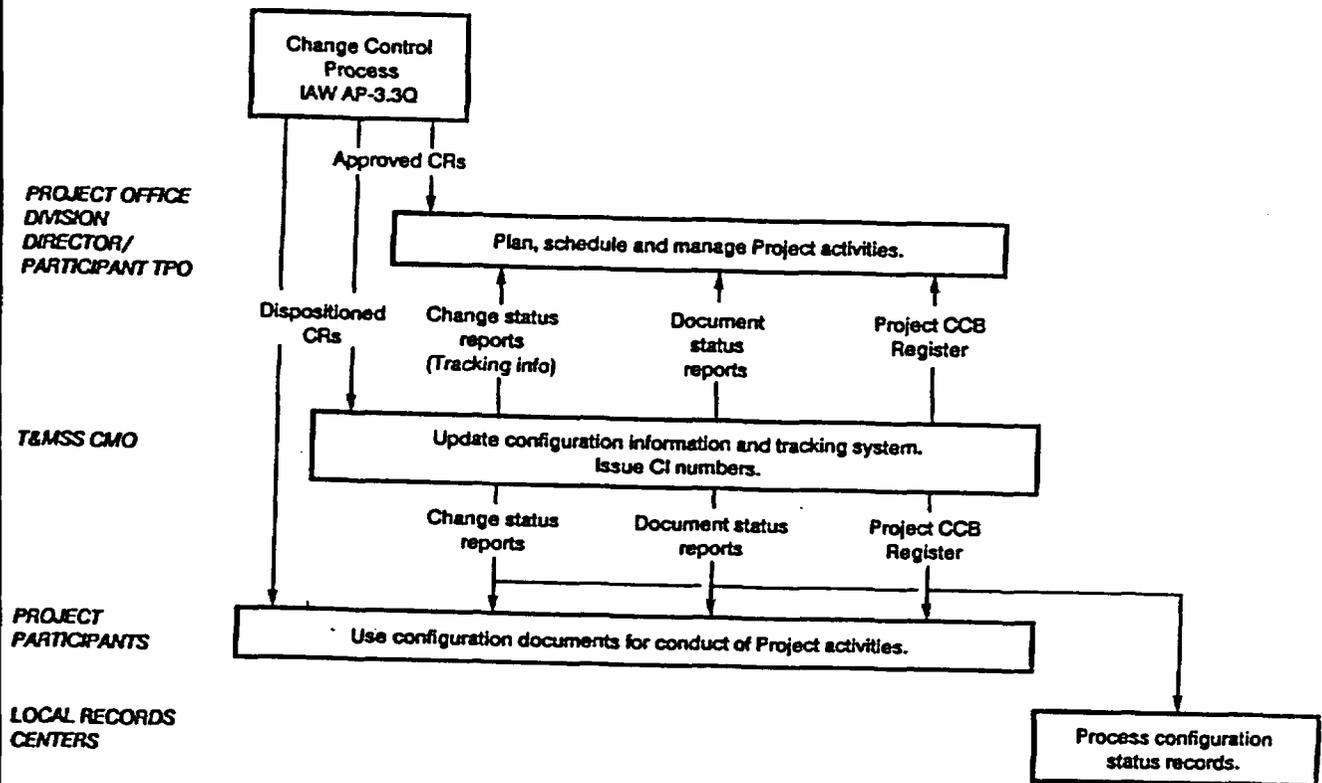
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IAW - In accordance with

CONFSTAT.005/1-9-89
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Exhibit 6. Configuration Status Accounting Process

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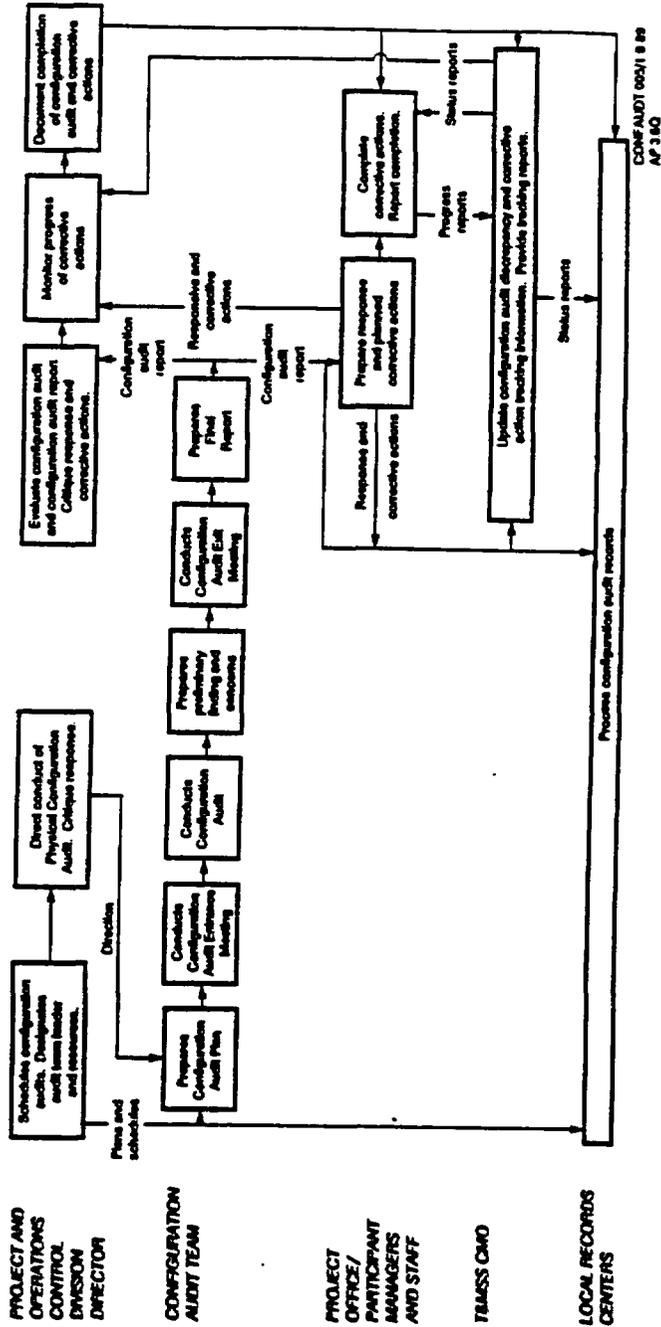


Exhibit 7. Configuration Audit Process

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AP-3.6Q CONFIGURATION MANAGEMENT

APPENDIX A

CONFIGURATION ITEM IDENTIFIERS

A.1 PURPOSE

A.1.1 This section establishes the requirements to be used within the Yucca Mountain Project for the identification of configuration items (CIs) under configuration control and the responsibility for assigning unique numbers to the CIs in order to ensure adequate and accurate traceability for equipment, components, computer software, facility sites, and spare parts to the CI.

A.2 REQUIREMENTS

A.2.1 Configuration Item Numbering Requirements

A unique CI number shall be assigned to each item entered in the Project Baseline. Each technical document shall reference all CI numbers that the document describes. CI numbers shall:

1. Establish a base for serializing individual units of a configuration item.
2. Establish a base for indexing configuration identification documents describing a CI.
3. Not change when the unit is modified, even though the interchangeability of units within the family is affected.
4. Remain unchanged even though the configuration may have more than one application or may be reprocedured through different contractors.

A.2.2 Assignment of Configuration Item Numbers

Unique CI numbers shall be assigned by the T&MSS CMO to the physical breakdown structure as described in the Project technical baseline documentation and upon approval of a CR that changes, deletes, or subdivides the physical structure.

A.2.3 Change Identification

A.2.3.1 CR Numbering

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APPENDIX A (cont)

A.2.3.1.1 A unique control number shall be assigned by the T&MSS CMO to each CR following approval for submittal by the originating authority in accordance with AP-3.3Q, Change Control Process.

A.2.3.1.2 CR identification numbers shall be assigned to control, track, and account for the submission, evaluation, disposition, production, implementation, and retrofit actions related to the CR. The CR number shall be applied to both the CR and the documentation by which the change is described and supported.

A.2.3.2 Document Change Notice Numbering

The Document Change Notice is prescribed by AP-3.3Q, Change Control Process.

A.2.4 Configuration Identifier Requirements

A.2.4.1 Document Identification Requirements

Documents submitted for entry into the Project baseline shall be completed in accordance with the requirements defined in AP-1.5Q, Issuance and Maintenance of Controlled Documents.

A.2.4.2 Physical Identification of CI Hardware/Software

Each hardware/software CI and each component of that CI that requires configuration traceability shall be assigned configuration identifiers in accordance with requirements as follows.

A.2.4.2.1 Hardware/software

The design organization and the manufacturer of the hardware/software shall be identified by manufacturing code identification numbers taken from the Cataloging Handbook H4, Federal Supply Code for Manufacturers.

A.2.4.2.2 Discrete units or lots

All discrete units or lots that are interchangeable, and whose subassemblies and parts are interchangeable to the lowest level of reparability, shall be identified by a part number. The part number shall always be assigned by the design organization.

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APPENDIX A (cont)

A.2.4.2.3 Family of like units

A family of like units of an item that individually satisfy prescribed functional requirements, but are not necessarily interchangeable, shall be identified by a unique part number. This number will establish a base for serializing individual units of an item, and will not change when the unit is modified as long as modification does not preclude reworking the unit to its original configuration.

A.2.4.2.4 Single unit or lot in a family of like unit

A single unit or lot in a family of like units of an item shall be permanently and uniquely identified by a serial number and the item's unique base CI number or part number.

A.2.4.3 Assignment of Numbers for Configuration Identifiers

A.2.4.3.1 The CR originator shall ensure that documentation submitted with a CR package will be identified in accordance with AP-3.3Q, Change Control Process.

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