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Title

AP-4.1Q PROCUREMENT

1.0 PURPOSE AND SCOPE

This procedure establishes responsibilities, interfaces, and processes for the procurement of all items and services required for support of Yucca Mountain Project programs, from preparation of a technical requirements package through acceptance.

2.0 APPLICABILITY

This procedure is applicable to all Yucca Mountain Project participants performing procurement activities.

3.0 DEFINITIONS

3.1 SOLICITATION PACKAGE

The solicitation package is the technical requirements package or change package with the contractual terms and conditions added by the Procuring Organization.

3.2 TECHNICAL REQUIREMENTS PACKAGE OR CHANGE PACKAGE

The technical requirements package or change package is that part of the procurement package that establishes the technical parameters and appropriate quality assurance requirements for the item or service being purchased.

4.0 RESPONSIBILITIES

4.1 PROJECT PARTICIPANTS

Project participants are responsible for development and/or maintenance of internal procurement procedures that ensure compliance with their Quality Assurance Program Plans (QAPPs). Project participants are additionally responsible for development and/or maintenance of a procurement tracking system that maintains traceability of the procurement documentation of purchased items and services.

4.2 REQUESTING ORGANIZATIONS

The Requesting Organizations are responsible for establishing the quality assurance requirements that must be met by suppliers; for specifying items or services; for designating quality assurance levels per AP-5.4Q, grading per AP-5.17Q, and acceptance criteria; for preparing a technical requirements

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package or change package; and for participating in acceptance tests and reviews of items as requested.

4.3 REQUESTING ORGANIZATION'S QUALITY ASSURANCE MANAGER

The Requesting Organization's Quality Assurance Manager is responsible for reviewing procurement documents and for participating in quality verification activities.

4.4 REQUESTING ORGANIZATION'S TECHNICAL PROJECT OFFICER

The Requesting Organization's Technical Project Officer is responsible for the review and approval of technical requirements packages or change packages and for obtaining other reviews and approvals.

4.5 DIVISION DIRECTOR, PROJECT OPERATIONS AND CONTROL DIVISION, YUCCA MOUNTAIN PROJECT OFFICE

The Project Operations and Control Division Director is responsible for review and acceptance of technical requirements packages or change packages for items and services submitted by the Project participants in support of the Yucca Mountain Project. The Project Operations and Control Division Director coordinates the Yucca Mountain Project Office (Project Office) review of the technical requirements packages or change packages.

4.6 PROJECT QUALITY MANAGER, YUCCA MOUNTAIN PROJECT OFFICE

The Project Quality Manager confirms by reviews, or surveillances, or ~~and~~ audits that procurement requirements have been met by the Project participants.

4.7 PROCURING ORGANIZATION

NTS Rgkcd

The Procuring Organization is responsible for soliciting, qualifying, and selecting suppliers capable of meeting the Requesting Organization's technical requirements; for ensuring that all procurement activities meet the Procuring Organization's applicable QAPP requirements; for the procurement of items and services in support of the Yucca Mountain Project; and for filing the final procurement document package, as specified in AP-1.7Q. The Procuring Organization is responsible for receiving, for inspection of items, and for ensuring proper handling until release to storage. Storage requirements will be established in AP-6.16. The Procuring Organization will make receiving arrangements as necessary when an item is to undergo shipping to and receipt by a different Project participant.

4.7.1 General Procurement Responsiblities

4.7.1.1 Construction procurements at the Yucca Mountain Site and/or the Nevada Test Site will be performed by Reynolds Electrical and Engingeering Company, Inc. (REECo).

4.7.1.2 Service procurements may be performed by the using Project participant.

4.7.1.3 Procurement of nonscientific and nontest equipment intended for standard and dedicated use at the Yucca Mountain Site and/or Nevada Test Site may be performed by REECo; procurement of equipment intended for use at other than the Yucca Mountain Site and/or Nevada Test Site will be performed by the using Project participant.

4.7.1.4 Procurement of scientific and test-related equipment may be performed by the using Project participant.

4.8 CONTRACTING OFFICER

The Contracting Officer is the government official appointed by warrant who may bind the Government to the extent of delegated authority. The Contracting Officer is responsible for review and approval of procurement actions submitted by the Project participants in accordance with the participant's contract.

5.0 PROCEDURE

NOTE: A flowchart illustrating the following procedure is attached as Exhibit 1.

5.1 PROCUREMENT PREPARATION

5.1.1 Prepare and Issue Technical Requirements Package or Change Package

The Requesting Organization will prepare a technical requirements package or change package per implementing procedures and will submit the package either to the Project Operations and Control Division Director or to the Procuring Organization.

5.1.2 Project Office Review

All requests for Capital Equipment, including automatic data processing equipment, not previously approved through any other approval process (e.g., Information Technology Resources - Long Range Plan or Work Authorization System) must receive Project Office approval. The Project Office reserves the

right to require approval or to designate the Procuring Organization on an exception basis.

5.1.3 Division Director, Project Operations and Control Division

The Project Operations and Control Division Director will coordinate the Project Office review of the technical requirements packages and will forward the packages to the Technical Project Officer of the Requesting Organization.

5.2 SOLICITATIONS

5.2.1 Submittal of the Technical Requirements Package

The Requesting Organization will submit the approved technical requirements package to the Procuring Organization.

5.2.2 Prepare Solicitation Package

The Procuring Organization will review the technical requirements package and will prepare the solicitation package. The Procuring Organization will coordinate any required reviews of the solicitation package and will incorporate any necessary revisions.

5.2.2.1 The Procuring Organization will submit the solicitation package to the Contracting Officer if required by the U.S. Department of Energy/participant contract or agreement.

5.2.3 Contracting Officer Review

The Contracting Officer will review the solicitation package and return it to the Procuring Organization.

5.2.4 Issue Solicitation

Upon return of an approved solicitation package, the Procuring Organization will issue the solicitation.

5.2.5 Receive and Review Proposals

The Procuring Organization will receive and review all submitted proposals for completeness.

5.2.6 Evaluate Proposals

The Procuring Organization will coordinate the evaluation of proposals as a minimum with the Requesting Organization to select the best proposal.

5.2.7 Qualify Suppliers

With assistance from the Requesting Organization, the Procuring Organization will conduct supplier preaward qualification of facilities and capabilities. The Procuring Organization ensures that the selected supplier has or will commit to the implementation of an approved quality assurance program if required by the solicitation.

5.3 AWARD

5.3.1 Prepare Award

The Procuring Organization will prepare and coordinate reviews of the award package. The Procuring Organization will submit the award package to the Contracting Officer, if required. Any changes as part of the preaward process shall be subject to the same degree of control as used in the preparation of the original documents.

5.3.2 Contracting Officer Review

The Contracting Officer will review and return the award package to the Procuring Organization.

5.3.3 Award Solicitation

The Procuring Organization will make the award with the selected supplier and distribute the procurement documents, as required by the participant's QAPP.

5.4 PERFORMANCE SURVEILLANCE

5.4.1 Schedule Verification Activities

The Procuring Organization will ensure that required verification activities are performed.

5.4.2 Nonconformances and Supplier Submittals

The Procuring Organization shall coordinate review, approval, and disposition of nonconformances and required supplier submittals with the Requesting Organization, as a minimum.

5.5 POSTAWARD CHANGES

Procurement document changes shall be subject to the same degree of control as used in the preparation of original documents.

5.6 RECEIPT AND INSPECTION

5.6.1 Receipt

The receiving organization will receive the item, prepare an over/short damage report, and notify the Requesting Organization and the Procuring Organization. The item will be held for acceptance until receipt inspection.

5.6.2 Acceptance

5.6.2.1 The Procuring Organization will ensure acceptance in accordance with approved inspection plans and procedures.

6.0 REFERENCES

AP-5.4Q, Assignment of Quality Assurance Levels.
AP-5.17Q, Application of Graded Quality Assurance.
AP-1.7Q, Records Management.
AP-6.16, Warehousing and Maintenance (To Be Done).

7.0 APPLICABLE FORMS

None.

8.0 RECORDS

The following Project records generated as a result of this procedure are considered QA records and shall be processed in accordance with AP-1.7Q:

Final procurement document package.

Title

AP-4.1Q PROCUREMENT

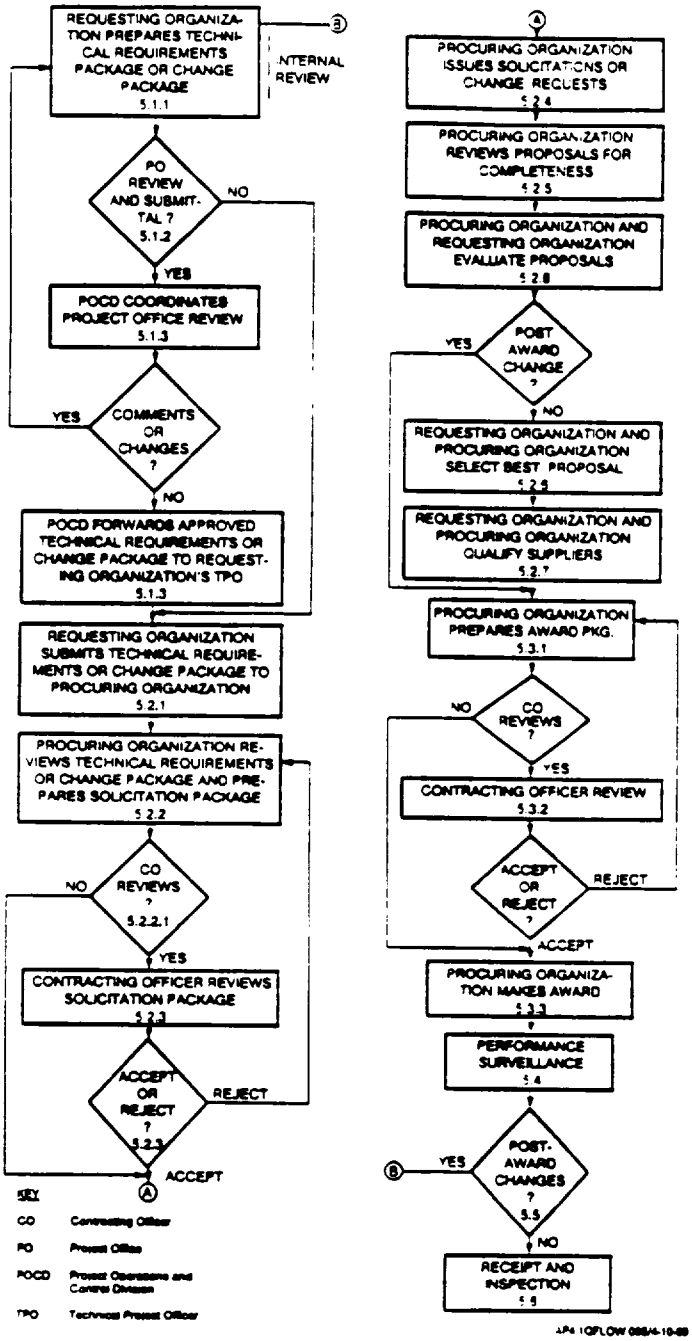

Exhibit 1. Procurement Process.

WBS 1.2.9.1.4.R
QA:N/A

Revision 0: This procedure is a total rewrite and supersedes TPO-4, Revision 1, 10-27-88.

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1.0 PURPOSE AND SCOPE

1.1 The purpose of this records management procedure is to provide the requirements and describe the responsibilities for REECo's Yucca Mountain Project Records Management Program.

1.2 The Department of Energy's Office of Civilian Radioactive Waste Management (OCRWM) Records Management Policies and Requirements document, the Yucca Mountain Project Quality Assurance Plan (NNWSI/88-9), the Yucca Mountain Project Records Management Plan (NNWSI/88-15), and Yucca Mountain Project Administrative Procedure AP-1.7Q, Records Management are the DOE controlling authorities for this procedure.

1.3 The REECo Yucca Mountain Project Quality Assurance Program Plan, 568-DOC-115, and REECo Quality Procedure QP 17.0, Quality Assurance Records are the REECo controlling authorities for this procedure.

1.4 Based on these controlling documents, this procedure describes the responsibilities, requirements, and procedures for the REECo Yucca Mountain Project Records Management Program for all REECo Yucca Mountain Project records, both Quality Assurance (QA) and non-Quality Assurance. This includes the implementation of the Records Management Program by REECo managers; the creation of records by Records Sources; the collection, review, and transmittal of records to the REECo Yucca Mountain Project Local Records Center (LRC) by REECo Records Administrators; the receiving and processing of records by the LRC; the transfer of records from the LRC to the Central Records Facility; the storage, protection, and preservation of records by Record Sources, Management, Records Administrators, and the LRC; the retrieval of records from the REECo LRC by REECo personnel; the access to the Records Information System by the LRC; and the training of REECo personnel in the Yucca Mountain Project Records Management Program.

2.0 APPLICABILITY

2.1 This procedure is applicable to all REECo offices and to all REECo Yucca Mountain Project records generated, purchased, received, and/or maintained as a result of REECo Yucca Mountain Project activities and functions. REECo Yucca Mountain Project records generated, purchased, received, and/or maintained prior to the issuance of Revision 0 of AP-1.7Q on August 15, 1988, shall not be required to meet the requirements of this procedure, but shall be processed into the Records Information System pending acceptance by the Central Records Facility. Instructions concerning these records will be issued to REECo Record Administrators when received from the DOE Yucca Mountain Project Office.

3.0 REFERENCES

The following documents constitute the source of the requirements stipulated in this procedure

3.1 Yucca Mountain Project Quality Assurance Plan, NNWSI/88-9, December 9, 1988, Las Vegas, NV

3.0 REFERENCES (Continued)

3.2 Yucca Mountain Project Records Management Plan, NNWSI/88-15, July 1988, Las Vegas, NV

3.3 Yucca Mountain Project Administrative Procedure, AP-1.7Q, Rev. 0, Records Management, August 15, 1988, Las Vegas, NV

3.4 Yucca Mountain Project Administrative Procedure, AP-1.7Q, Rev. 1, Records Management, April 19, 1989, Las Vegas, NV

3.5 Yucca Mountain Project Administrative Procedure, AP-1.7Q, Rev. 2, Records Management, May 23, 1989, Las Vegas, NV

3.6 Reynolds Electrical and Engineering Company, Quality Assurance Program Plan for the Yucca Mountain Project, 568-DOC-115, January 26, 1989, Las Vegas, NV

3.7 Reynolds Electrical and Engineering Company, QP 17.0, Quality Assurance Records, January 3, 1989, Las Vegas, NV

4.0 DEFINITIONS

4.1 ABSTRACT - An Abstract is a summary record that identifies the prominent points, results, conclusions, or other subject matter that constitutes record contents.

4.2 ACCESSION NUMBER - An Accession Number is a unique identifier for each indexed Yucca Mountain Project record. The accession number is composed of a three-character data element (followed by a period) for location, a two-character data element for year, a two-character data element for month, a two-character data element (followed by a period) for day, and a four-character data element for a sequential identification number (e.g., NNA.880601.0025).

4.3 ADMINISTRATIVE PROCUREMENT RECORDS - Administrative procurement records are those records dealing with the procurement of administrative supplies and services, such as paper, pens, desks, chairs, reproduction services, etc.

4.4 AUTHENTICATION - Authentication is the act of attesting that the information contained within a document is accurate, complete, and appropriate to the work accomplished. Authentication is accomplished by one of the following methods: (1) A stamped, initialed or signed, and dated document; (2) a written statement by the responsible individual or organization; or (3) issuing a document which is clearly identified as a statement by the reporting individual or organization. A document cannot become a Quality Assurance (QA) record until it has been authenticated.

4.5 BACKLOG (RETROFIT) RECORDS - Backlog Records are Project records generated, purchased, received and/or maintained prior to issuance of Revision 0 of AP-1.7Q, August 15, 1988. Backlog Records shall not be required to meet the requirements of this procedure. However, such records that do not meet the requirements of this procedure must be designated as QA:N/A or IND.

4.0 DEFINITIONS (Continued)

4.6 CENTRAL RECORDS FACILITY (Yucca Mountain Project CRF) - The Yucca Mountain Project CRF is an entity within the Technical and Management Support Services (T&MSS) Contractor that is responsible for receiving, processing, storing, preserving, retrieving, and assigning a unique accession number to Yucca Mountain Project records.

4.7 DOCUMENT - A document is any written or pictorial information describing, defining, specifying, reporting, or certifying activities, requirements, procedures, or results.

4.7.1 DRAFT DOCUMENT - A draft document is a document (other than a final document) that proposes or reflects a Project position, policy, plan, or intended purpose and that is transmitted by a supervisory official of the originating organization for formal concurrence <u>within</u> the Project, or formally transmitted <u>outside</u> the Project for review and/or comment, or, in the case of Project participants, provided to the Project Office as a scheduled deliverable.

4.7.2 PRELIMINARY DRAFT DOCUMENT - A preliminary draft document is a document that is under development or preparation reflecting work in progress. The process of finalization may require iterations and revisions that may be transmitted freely <u>within</u> the Department of Energy (DOE) (including the Project participants) if the document is marked "PRELIMINARY DRAFT." Preliminary drafts are excluded from capture in the records system and shall not be retained beyond completion of a subsequent iteration.

4.8 INFORMATION COPY - An information copy is a document that is circulated or transmitted for information purposes only. Such documents must be stamped "Information Copy," or designated "information copy" through a buck slip. Information copies are excluded from capture in the records system. For REECo purposes an Information Copy is defined as those copies which are unofficial and uncontrolled but distributed to REECo employees to acquaint them with the contents of the record. The original and official distribution copies should <u>not</u> be stamped INFORMATION COPY.

4.9 LIMITED-VALUE MATERIAL - Limited-Value Material includes those classes of documentary or other material which will not be captured by the Records Information System (RIS) and which may be disposed of without special authority, including, but not limited to, the following:

- Information copies of correspondence and other materials on which no documented administrative action is taken or required. Materials transmitted solely for information purposes must be clearly marked INFORMATION COPY. (See Record Definition in Section 4.22.)
- Materials documenting such fringe activities as employee welfare activities and charitable fund drives.
- Reading file copies of correspondence.
- Tickler, follow-up, or suspense copies of records.

4.0 DEFINITIONS (Continued)

- Duplicate copies of all records maintained in the same file.
- Extra copies of printed or processed material, official copies of which have been retained for record purposes.
- Superseded manuals or other directives maintained outside the originating office.
- Routing slips.
- Working papers.
- Transmittal sheets, unless used to transmit material for action.
- Blank forms.
- Transcribed stenographic material.
- Processed or published material received from other activities or offices, and which requires no action, and is not required for documentary purposes (the originating office or activity is required to maintain record copies).
- Catalogs, trade journals, and other publications or papers that are received from Government agencies, commercial firms, or private institutions, and which require no action and are not part of a case upon which action is taken.
- Correspondence and other materials of short-term value that, after action has been completed, have neither programmatic nor informational value, such as requests for publications and communications on hotel reservations.
- Reproduction materials such as stencils and offset masters.
- Physical exhibits, artifacts, and material lacking documentary value.
- Telecopies (Facsimiles) of materials. If Telecopies (Facsimiles) of signed documents are sent, the original of the signed document(s) (including draft documents), must be forwarded immediately through the mail system.

4.10 LOCAL RECORDS CENTER (LRC) - The Local Records Center is an entity within each Yucca Mountain Project participant's organization that is responsible for collecting and receiving Yucca Mountain Project records, verifying the completeness and quality of records, protecting all records in accordance with the Yucca Mountain Project Quality Assurance Plan, Section 17.0, transmitting records to the Yucca Mountain Project Central Records Facility, accessing the Records Information System, and retrieving records in response to internal Yucca Mountain Project Participant requests.

4.0 DEFINITIONS (Continued)

4.11 NEVADA TEST SITE (NTS) LOCAL RECORDS CENTER (LRC) - The NTS LRC is an entity within the NTS that is responsible for receiving, reviewing, protecting, and transmitting Project records from any Project participant personnel who are performing work at the NTS.

By letter dated April 13, 1989, from R. F. Pritchett to Carl P. Gertz, subject: Creation of a Project-Wide Local Records Center (LRC) in Area 25 of the Nevada Test Site (NTS) (NN1-1989-1671), REECo has determined that all REECo YMP records will continue to be sent directly to the REECo LRC. A copy of this letter is included as Exhibit I.

4.12 NON-PROCESSED MATERIAL - Non-Processed Materials are materials that shall not be captured by the records system including, but not limited to, the following:

- Pre-award information and documents (i.e., information on a procurement prior to contract award, Source Evaluation Board materials, proposal information, etc.) except as required as a QA record. This material must be clearly marked "Pre-Award."
- Personnel records, except as required as QA records (e.g., qualification and training records). See Section 6.9.5 and Exhibit II for guidelines pertaining to qualification and training records.
- Business-sensitive (financial or commercial) information, which is so marked.
- Information which has been classified pursuant to an Executive Order or statute, which is so marked. Hard copies of such material, when used in the conduct of Yucca Mountain Project business, shall be stored and handled in accordance with DOE 5635.1, "Control of Classified Documents and Information."
- Personal correspondence, which is so marked (unless submitted for processing).
- Preliminary drafts or working papers, facsimiles, and records circulated or transmitted for information purposes, when so marked.
- Circulation/direct distribution mail, subscriptions, periodicals, press releases, and news clippings.
- International draft correspondence, documents, brochures, and literature. Final reports and official documents are not excluded.
- Travel vouchers, travel authorizations, purchase orders, training requests, personnel actions, and similar administrative material, where a record copy is retained by another organization (e.g., the Human Resources Department).
- Contractor-generated contract progress reports and telephone logs, except when included as part of a required records turnover package.

4.0 DEFINITIONS (Continued)

- Documents prepared by another Department of Energy (DOE) organization, not DOE Headquarters (HQ) Office of Civilian Radioactive Waste Management (OCRWM) or the DOE/Yucca Mountain Project Office, and submitted to the Yucca Mountain Project for routine concurrence or coordination, whose subject matter does not relate specifically or exclusively to the Yucca Mountain Project.

- Information copies of material which are clearly marked INFORMATION COPY.

NOTE: To be considered Non-Processed Material, the record itself and/or its transmittal envelope must be clearly marked "Information Copy," "Preliminary Draft," "Sensitive Restricted," "Personal," "Company Private," etc.

4.13 OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT (OCRWM) - The Office of Civilian Radioactive Waste Management is the Department of Energy Headquarters (DOE/HQ) organization that provides overall administration and policy direction to the Yucca Mountain Project.

4.14 ONE-OF-A-KIND RECORDS - One-of-a-kind records are records that cannot be duplicated or microfilmed or lose their meaning when microfilmed. Such records include, but are not limited to, the following: Radiographs, multi-colored maps, and map overlays.

4.15 PERSONAL WORKING FILES - Personal working files are Project-related files kept or created by a Project employee in the performance of his or her official duties on the Project. To be designated as such, the files must be in the possession of the individual, completely segregated from, and in addition to the official office files. See Section 6.2 for disposition of these files.

4.16 PROJECT MICROFILMING CENTER (PMC) - The PMC is an entity within Holmes & Narver, Inc. (H&N) that is responsible for microfilming Project records, preparing source documents, operating cameras, filming, entering microfilm locations into the Records Information System, processing microfilm, and verifying film quality.

4.17 PROJECT RECORDS - Project records are all records (as defined in Section 4.22) generated or received by Project participants as a result of any YMP activity except for Administrative Procurement Records and those that are designated as limited-value or non-processed material (as defined in Sections 4.9 and 4.12, respectively, of this procedure) except when the procedure governing the activity specifically requires the submission of records otherwise considered limited-value or non-processed.

4.18 QUALITY ASSURANCE - All those planned and systematic actions that are necessary to provide adequate confidence that the geologic repository and its subsystems or subcomponents will perform satisfactorily in service.

4.18.1 QUALITY ASSURANCE LEVEL I - Those radiological health and safety related items and activities that are important to either safety or waste isolation and that are associated with the ability of a geologic nuclear waste repository to function in a manner that

4.0 DEFINITIONS (Continued)

prevents or mitigates the consequences of a process or event that could cause undue risk to the radiological health and safety of the public. Items and activities important to safety are those engineered structures, systems, components, and related activities essential to the prevention or mitigation of an accident that could result in a radiation dose either to the whole body or to any organ of 0.5 rem or greater either at or beyond the nearest boundary of the unrestricted area at any time until the completion of the permanent closure of the repository. Items and activities important to waste isolation are those barriers and related activities which must meet the criteria that address long-term performance of the engineered and natural barriers to inhibit the release of radionuclides from the site to the accessible environment after permanent closure. The criteria for items or activities important to safety and waste isolation are found in 10CFR60, and 40C 191.

4.18.2 QUALITY ASSURANCE LEVEL II - Those activities and items related to the systems, structures, and components which require a level of quality assurance sufficient to provide for reliability, maintainability, public and repository worker nonradiological health and safety, repository worker radiological health and safety and other operational factors that would have an impact on DOE and Project Office concerns, and the environment.

4.18.3 QUALITY ASSURANCE LEVEL III - Those Quality Assurance activities and items not classified as QA Levels I or II.

4.18.4 QUALITY ASSURANCE: INDETERMINATE (QA:IND) - IND is a QA designation for records and record packages that could not be assigned a QA Level or designation. The record or record package may be evaluated at a later date, in accordance with the procedure implementing NUREG 1298, to obtain a QA Level designation.

4.18.5 QUALITY ASSURANCE: NOT APPLICABLE (QA:N/A) - Those activities, items, and actions which support the project but which do not effect the confidence in the geological repository and its subsystems or subcomponents to perform satisfactorily in service. It is noted on records and records packages as QA:N/A.

4.19 QUALITY ASSURANCE PLAN (QAP) - The document that describes the planned, systematic quality assurance requirements that are applicable to the Yucca Mountain Project. The QAPs of the Project Office, Participating Organizations, and NTS Support Contractors shall be consistent with this document.

4.20 QUALITY ASSURANCE PROGRAM PLAN (QAPP) - The document that describes the organization's Quality Assurance Program, the applicable QA requirements, and defines how compliance with the QA criteria will be accomplished.

4.21 QUALITY ASSURANCE RECORD - A Quality Assurance Record is an individual document or other item that has been executed, completed, and approved and that furnishes evidence of (1) the quality and completeness of data (including raw data), items, and activities affecting quality; (2)

4.0 DEFINITIONS (Continued)

documents prepared and maintained to demonstrate implementation of Quality Assurance programs (e.g., audit, surveillance, and inspection reports); (3) procurement documents; (4) other documents such as plans, correspondence, documentation of telecons, specification, technical data, books, maps, papers, photographs, and data sheets; (5) items such as magnetic media; and (6) other materials that provide data and document quality regardless of the physical form or characteristic. A completed record is a document or item (and documentation) that will receive no more entries, whose revisions would normally consist of a reissue of the document (or documentation), and that is signed and dated by the originator and, as applicable, by approval personnel.

4.22 RECORD - Records are all books, documents, papers, maps, photographs, machine-readable materials, or other documentary materials, regardless of physical form or characteristics, made or received by an agency of the U.S. Government or in connection with the transaction of public business and preserved or judged appropriate for preservation by that agency or its legitimate successor as evidence of the organization, functions, policies, decisions, procedures, operations, or other activities of the Government or because of the informational value of the data contained therein. Library and museum materials made or acquired and preserved solely for reference or exhibition purposes, extra copies of records preserved only for convenience of reference and stocks of publications and of processed documents are not included.

4.23 RECORD PACKAGE - A Record Package is a collection of records supporting one topic (subject) which are filed as a case file (i.e., QA audit file, contract or procurement file, engineering drawing package). The file will be held by the originating office or individual until the transaction is completed. It will then be indexed and processed as one record.

4.23.1 ADMINISTRATIVE RECORDS PACKAGE - An Administrative Records Package is created by government agencies and contains the documentation government officials have generated in the administrative support of a particular project. In the Yucca Mountain Project only the Department of Energy generates these Records Packages. No REECo Record Packages will be Administrative Records Packages.

4.23.2 INTERIM RECORDS PACKAGE - Collections of data records generated as a result of on-going Project activity(ies) that must be submitted to a Local Records Center at intervals not to exceed 45 days.

4.23.3 PERSONAL RECORDS PACKAGE - A Personal Records Packages is a Records Package that is a file from the Personal Working Files (See Section 4.15) turned over to the LRC. The records within the package do not have to meet the requirements of this procedure but it must contain a Table of Contents describing the package contents.

4.23.4 QUALITY RELATED PACKAGE - A Quality Related Package is a collection of records related to a Quality Assurance activity or item performed or obtained by Yucca Mountain Project Participant personnel.

4.0 DEFINITIONS (Continued)

4.23.5 RECORD PACKAGE SEGMENT - A record package segment is a record or group of records that shall be included as part of a record package.

4.23.6 RECORDS TURNOVER PACKAGE - Records Turnover Package (RTP) is the default Record Package Identifier used for all Record Packages that are not Quality Related Packages, Administrative Packages, or Personal Record Packages.

4.24 RECORD PACKAGE IDENTIFIER - A Record Package Identifier is an alphanumeric code used to identify record packages. The Record Package Identifier is written as "___.X.X.X," where "___" is the three-digit alpha code used to identify the type of record package (i.e., QRP, Quality Related Packages; ARP, Administrative Record Packages; RTP, Record Turnover Packages (non-quality related materials), or PRP, Personal Records Packages). and "X" is the Work Breakdown Structure (WBS) number assigned to the record package. The Record Package Identifier shall be entered into the records system.

4.25 RECORD SOURCE - A Record Source is any individual or organizational entity employed by a Yucca Mountain Project participant who is responsible for generating records or receiving records from an entity outside the Yucca Mountain Project.

4.26 RECORDS ADMINISTRATOR - A Records Administrator is the individual selected by the head of a functional unit within REECo who is qualified to administer the unit's Yucca Mountain Project records management procedures.

4.27 RECORDS FROM ASSOCIATED SUPPLIERS - Records from Associated Suppliers are those documents received as part of a procurement activity and generated by the supplier of the item, activity, or service.

4.28 RECORDS INFORMATION SYSTEM (RIS) - The Records Information System is a computerized index, search, and retrieval system for records management on the Project. This system is maintained by the T&MSS Contractor.

4.29 RECORDS MANAGEMENT PROCEDURE QUALITY REVIEW - A Records Management Procedure Quality Review is a critique and evaluation of a records management procedure by a qualified REECo Yucca Mountain Project Quality Assurance person. The reviewer should be knowledgeable of the REECo Quality Assurance Program Plan, REECo QP 17.0, the current revision of AP-1.7Q, and the requirements for Quality Assurance Records.

4.30 RECORDS MANAGEMENT PROCEDURE TECHNICAL REVIEW - A Records Management Procedure Technical Review is a critique and evaluation of a records management procedure by a qualified REECo person outside of the office that originated the procedure. The reviewer should be knowledgeable of the Yucca Mountain Project, records management, and the requirements of this procedure.

4.31 RECORDS PACKAGE TABLE OF CONTENTS - A Records Package Table of Contents is prepared by the Record Source or the Records Administrator and is a list of the individual records or groups of records that constitute the

4.0 DEFINITIONS (Continued)

record package. It is placed in front of each record package and shall contain the Record Package Identifier, the Quality Assurance designation, and the accession numbers of any related interim data packages that had been previously submitted.

4.32 RECORDS PURCHASED OR RECEIVED FROM OUTSIDE ENTITIES - Records Purchased or Received from Outside Entities are records obtained for the Project by sale or in the fulfillment of a subcontract service or procurement action and which are necessary to document Project activity.

4.33 REECO INFORMATION MANAGEMENT MANAGER - The Information Management Manager is appointed by the Technical Project Officer to implement and administer all Yucca Mountain Project Records Management activities within REECo.

4.34 SPECIAL-PROCESSED RECORDS - Special-Processed Records are records that cannot be microfilmed on 16mm rolls of film. These records may be filmed on aperture cards (i.e., oversized maps and logs) or they may be duplicated and stored in dual storage.

4.35 SUPPORTING MATERIALS - Supporting Materials are documents generated in the process of preparing a report, study, or other document or generated during any other Project activity that has been completed. They shall be submitted to the Local Records Center as packages with an RTP.X.X.X package identifier. These documents are not required to meet the other requirements of this procedure, but shall be clearly identified as "supporting" or "backup" material and shall be inventoried on the Table of Contents. The Record Packages shall be designated QA:N/A.

4.36 TECHNICAL PROJECT OFFICER (TPO) - The individual within each Yucca Mountain Project Participant's organization who has been assigned overall responsibility for the organization's scope of work as detailed in the Project Work Breakdown Structure Index and Dictionary (YMP/CC-0001).

4.37 VALIDATION - Validation is the act of reviewing a document or document package to ensure it is complete, authenticated, reproducible, and microfilmable.

4.38 WORK BREAKDOWN STRUCTURE (WBS) NUMBER - The Work Breakdown Structure (WBS) Number is a number that relates work efforts to products or projects in the Yucca Mountain Project. The format is numeric X.X.X ... with the final character the letter R for REECo tasks. WBS numbers are tied to work order numbers for costing and payment and are assigned based on the Project Work Breakdown Structure Index and Dictionary, YMP/CC-0001.

4.39 YUCCA MOUNTAIN PROJECT PARTICIPANT - An all inclusive term used to describe (generically) the various organizations involved in the Project. This term includes the YMPO, Participating Organizations, and NTS Support Contractors. These organizations are required to have a YMPO approved Quality Assurance Program Plan (QAPP) for the conduct of their activities.

5.0 RESPONSIBILITIES

5.1 TECHNICAL PROJECT OFFICER - The Technical Project Officer is the REECo official who is responsible to the DOE Yucca Mountain Project office for the overall administration and operation of the REECo participation in the Yucca Mountain Project. The Technical Project Officer is the one-point contact between REECo, the DOE, Participating Organizations, and other NTS Support Contractors on all Yucca Mountain Project activities.

For the REECo Yucca Mountain Project Records Management Program, the Technical Project Officer is responsible for the following:

5.1.1 Designating the Manager of the Yucca Mountain Project Information Management Office to implement and administer this procedure throughout REECo.

5.1.2 Reviewing, approving, and issuing this procedure to REECo personnel.

5.1.3 Reviewing and approving the REECo Yucca Mountain Project Records Management Manual which implements this procedure within the REECo offices.

5.1.4 Ensuring that procedures are established and implemented which support the REECo Records Management Program.

5.2 REECO YUCCA MOUNTAIN PROJECT INFORMATION MANAGEMENT MANAGER - The REECo Yucca Mountain Project Information Management Manager is responsible for:

5.2.1 Administering all Yucca Mountain Project Records Management activities within REECo.

5.2.2 Coordinating all REECo Yucca Mountain Project Records Management activities with the other participants and contractors in the Yucca Mountain Project through the Chief, Project Control Branch, Project Office (or designee) as directed by the Director, Project and Operations Control Division, Project Office.

5.2.3 Performing as the Technical Review Coordinator for all administrative procedures relating to the REECo Yucca Mountain Project Records Management Program.

5.2.4 Submitting this procedure to the Technical Project Officer and the REECo Yucca Mountain Project Quality Assurance Manager for review and approval.

5.2.5 Preparing and submitting records management activity reports to the Technical Project Officer and keeping the Technical Project Officer informed of all matters affecting the REECo Yucca Mountain Project Records Management Program.

5.2.6 Establishing, staffing, and supervising a Local Records Center (LRC) for collecting, controlling, protecting, processing, and transferring to the Central Records Facility (CRF) all REECo Yucca Mountain Project records, including Quality Assurance (QA) records.

5.0 RESPONSIBILITIES (Continued)

5.2.7 Informing the LRC of any policy or operational changes which may affect the REECo Yucca Mountain Records Management Procedures.

5.2.8 Providing and implementing the equipment, software, training, and procedures necessary to permit access to the Records Information System from the REECo LRC.

5.2.9 Assuring that the REECo Yucca Mountain Project Records Management Program is administered in accordance with YMP AP-1.7Q, the REECo Quality Assurance Program Plan, 568-DOC-115, REECo YMP Procedure QP 17.0, and other DOE or REECo policies, procedures, and directives as may be developed.

5.2.10 Coordinating the review of records proposed to be protected from general disclosure with the Technical Project Officer, the LRC, the Records Administrator, and the Record Source.

5.3 REECO YUCCA MOUNTAIN PROJECT QUALITY ASSURANCE MANAGER - The REECo Yucca Mountain Project Quality Assurance Manager is responsible for the following:

5.3.1 Reviewing this procedure to ensure that it is in accord with the REECo Quality Assurance Program Plan (QAPP) 568-DOC-115, and REECo QP 17.0.

5.3.2 Ensuring that associated contractors, subcontractors, suppliers, and consultants provide appropriate records to REECo offices to be incorporated into record packages that will be submitted to the REECo Local Records Center.

5.3.3 Performing or participating in periodic audits and surveillances of REECo Yucca Mountain Project activities for compliance with this procedure.

5.4 REECO MANAGEMENT, ADMINISTRATION, TECHNICAL, OPERATIONS, PROJECT, AND STAFF OFFICES - Each REECo office generating or receiving the record copy of Yucca Mountain Project records shall:

5.4.1 Appoint a Records Administrator who shall implement, administer, and enforce the Yucca Mountain Project records management procedures.

5.4.2 Implement and enforce this procedure and the REECo Yucca Mountain Project Records Management Manual as the internal office procedure for the REECo Yucca Mountain Project Records Management Program.

5.4.3 Prepare a list of personnel who are designated to sign, authenticate, or validate Yucca Mountain Project records. This list shall contain the signature and initials of the personnel and shall be sent to the REECo Yucca Mountain Project LRC. Each time personnel changes occur that add or delete names on this list, the office is responsible to send an update, with signatures and initials, of these changes to the LRC. Updates of the list shall

5.0 RESPONSIBILITIES (Continued)

be provided to the LRC at least annually. This list is a QA record and must be authenticated.

5.4.4 Write procedures for project activities that include a section that lists record/record package types that will be generated as a result of the implementation of the procedure and designate which of these will be QA records/record packages.

5.4.5 Develop and provide to the LRC a list of the records (including record packages) to be generated as a result of Project activities; identify the procedures, task plans, activity plans, scientific investigation plans, study plans, etc., that will generate those records or record packages, and designate which of those records will be QA records. Update the list as appropriate and provide updates of the list to the LRC at least annually. (This list is a QA record and must be authenticated.)

5.4.6 Establish methods as described in Section 6.4.1 that will protect Yucca Mountain Project records from deterioration, loss, larceny, or damage as required by 568-DOC-115, 36 CFR 1230.20, and AP1.7Q from the time of document creation until transfer to the LRC.

5.4.7 Establish policies and procedures to identify records to be marked privileged and to be protected from general disclosure and coordinate the review of those records by the Technical Project Officer through the Records Administrator.

5.4.8 Establish record requirements for agreements/contracts with associated contractors, suppliers, and consultants that ensure that they will submit appropriate records to REECo that are consistent with the standards established in this procedure.

5.4.9 Provide the LRC with the best available copy of records or record packages received or purchased from entities outside of the Project. If these records do not meet the standards for records described in Sections 6.1.1.12 and 6.1.1.13, they must be stamped BEST AVAILABLE COPY and be accompanied by documentation that confirms that these are the best copies available.

5.4.10 Ensure that records that are submitted to the Site and Engineering Properties Database and/or the Reference Information Base are submitted to the REECo LRC. At the present time REECo's Scope of Work does not originate information for these Data Base resources. See letter from R. F. Pritchett to Carl P. Gertz, Yucca Mountain Project Administrative Procedure (AP) 5.2Q, (Information Flow to and from the Yucca Mountain Project Technical Slate Base) and AP 5.3Q (Information Flow into the Project Reference Information Base) May 15, 1989, in Exhibit III.

5.4.11 Ensure that appropriate functional personnel are trained and qualified to meet Records Management requirements.

5.0 RESPONSIBILITIES (Continued)

5.5 RECORDS ADMINISTRATOR - The Records Administrator is responsible for:

5.5.1 Implementing and administering this procedure and the REECo Yucca Mountain Project Records Management Manual.

5.5.2 Identifying Record Sources within the office and requesting that the LRC supply them with copies of the REECo Yucca Mountain Project Records Management Manual.

5.5.3 Ensuring that documents that are to become Project records (both QA and non-QA), records, record package segments, and record packages are protected from deterioration, loss, larceny, or damage in accordance with the Project QAP, Section 17.0, 36 CFR 1230.20, and this procedure from the time of receipt from the Record Source until transmittal to the LRC.

5.5.4 Ensuring that records and record packages meet the requirements described in Sections 6.1.1 and 6.1.2 of this procedure.

5.5.5 Coordinating the review of records that are proposed to be marked "Privileged" by the Record Source through the LRC and the REECo Yucca Mountain Project Information Management Manager.

5.5.6 Transmitting all records/record packages created or initially received by the organizational unit for which the Records Administrator is responsible to the REECo LRC within ten (10) working days from the date of completion or receipt.

5.5.7 Ensuring that the Record Source submits to the Records Administrator records and/or record packages generated or initially received in conjunction with a contract, agreement, or request with an associated contractor, consultant, or supplier that meet the record requirements as established in the contract, agreement, or request as stipulated by the Record Source's controlling office.

5.5.8 Ensuring that appropriate Record Sources attend training in the REECo Yucca Mountain Project Records Management Program.

5.5.9 Attending REECo Yucca Mountain Project Records Management training sessions.

5.6 RECORD SOURCE - The Record Source is responsible for:

5.6.1 Following the requirements for records and record packages as described in Sections 6.1.1 and 6.1.2 of this procedure when creating documents that will become Yucca Mountain Project records.

5.6.2 Adhering to the operating procedures detailed and provided in the REECo Yucca Mountain Project Records Management Manual.

5.0 RESPONSIBILITIES (Continued)

5.6.3 Authenticating and validating records in accordance with Sections 6.1.1.1 and 6.1.2.5 of this procedure.

5.6.4 Protecting records from deterioration, loss, larceny, or damage in accordance with the Project QAP, Section 17.0, 36 CFR 1230.20, and this procedure from the time of creation until transmittal to the Records Administrator.

5.6.5 Turning over any personal working files to the Records Administrator for transmittal to the LRC upon completion of an activity or work project, upon termination of employment, or as otherwise directed by the REECo Technical Project Officer.

5.6.6 Preparing a Table of Contents that lists all individual records that constitute the package for each record package.

5.6.7 Notifying the Records Administrator of any error(s) in previously processed record(s) and submitting the complete corrected record(s) to the Records Administrator for transmittal to the LRC. Corrections shall be made as described in Section 6.1.3.

5.6.8 Generating two copies to be turned over to the LRC through the Records Administrator for records that can be duplicated but not microfilmed, such as photographic negatives and prints, computer floppy disks, cassette tapes, etc.

5.6.9 Transmitting all records created or initially received to the Records Administrator.

5.6.10 Notifying the Records Administrator of any planned or actual participation in a task supporting or relating to the Yucca Mountain Project and identifying any documents which will be originated or initially received.

5.6.11 Ensuring that the record requirements established by the office for agreements/contracts with associated contractors, consultants, and suppliers are part of the contract, agreement, or request negotiated and that these requirements are met in the creation of the record or record package to be submitted to the Records Administrator.

5.6.12 Attending REECo Yucca Mountain Project Records Management Training and/or Orientation sessions.

5.7 THE YUCCA MOUNTAIN PROJECT LOCAL RECORDS CENTER (LRC) - The LRC is responsible for the following:

5.7.1 Developing and maintaining the REECo Yucca Mountain Project Records Management Manual and distributing it as a controlled document.

5.7.2 Maintaining the list of signatures and initials of persons authorized to sign, authenticate, and/or validate REECo Yucca Mountain Project records. This list shall be supplied and

5.0 RESPONSIBILITIES (Continued)

maintained by department managers or their designee as required in Section 5.4.3 of this procedure.

5.7.3 Establishing and maintaining a list of names of persons who have access to the records. This shall include all LRC staff, the REECo Information Management Manager, the REECo Yucca Mountain Project Technical Project Officer, the Chief, Project Control Branch, and other personnel authorized by the REECo Technical Project Officer.

5.7.4 Maintaining the record/record package type lists submitted by REECo offices as required in Section 5.4.5 of this procedure.

5.7.5 Compiling a QA record/record package type list from the record/record package type lists submitted by REECo offices, updating the list at least annually, and transmitting this list and subsequent updates to the Chief, Project Control Branch, DOE Project Office.

5.7.6 Providing assistance to Record Administrators and Record Sources in resolving problems, visiting departmental work locations, training the Record Administrator and the Record Sources, and providing advice and assistance as requested.

5.7.7 Receiving records and record packages from the Record Administrators.

5.7.8 Reviewing Transmittal Forms to ensure all the required data, as described in Section 6.1.4.1 and 6.1.4.2, has been provided.

5.7.9 Reviewing records and record packages to ensure they are acceptable for microfilming in accordance with Appendix A of AP-1.7Q (see Exhibit IV) and Section 6.1.1.12.3, of this procedure and that they meet the requirements for records as described in this procedure.

5.7.10 Protecting and storing records from the time of receipt until transmittal to the Central Records Facility in accordance with Section 6.4.2 of this procedure.

5.7.11 Protecting One-of-a-Kind and Special-Processed records against deterioration, loss, larceny, or damage in accordance with 568-DOC-115, Section 17.0, 36 CFR 1230.20, and AP-1.7Q.

5.7.12 Checking for duplicate records as described in Section 6.3.1.7.

5.7.13 Transmitting completed records and record packages to the Yucca Mountain Project Central Records Facility within 10 working days of receipt from the Record Administrators.

5.7.14 Coordinating with the Records Administrators and the REECo Yucca Mountain Project Information Management Manager the transmittal of records proposed as being protected from general disclosure for review by the Technical Project Officer.

5.0 RESPONSIBILITIES (Continued)

5.7.15 Training REECo personnel in the implementation of this procedure and the REECo Yucca Mountain Project Records Management Manual.

6.0 PROCEDURES

6.1 YMP RECORDS GENERATED BY REECO PERSONNEL

6.1.1 PREPARATION OF INDIVIDUAL RECORDS

6.1.1.1 Authentication - Records shall be prepared in accordance with the requirements outlined within this procedure and, if QA records, shall be properly authenticated by (1) stamping, initialing or signing, and dating the document; (2) providing a written statement of authentication; or (3) issuing a document which is clearly identified as a statement by the reporting individual or organization.

6.1.1.2 Assignment of a Work Breakdown Structure (WBS) Number - A Work Breakdown Structure (WBS) number, as appropriate, but at least to the third level (i.e., WBS: X.X.X), shall be assigned to all records in accordance with the WBS element corresponding to the subject activity. The appropriate WBS number shall be placed in the upper right-hand corner of the first page of the record. (Record Package segments shall not require an assigned WBS number).

6.1.1.3 Designation of Records as QA Records - Records shall be designated as QA records (QA) or non-QA records (QA: N/A) or indeterminant (QA: IND) by placing the appropriate designation on the front of the records, in the upper right-hand corner, immediately below the WBS number. (Record Package segments shall not require a separate QA designation.)

6.1.1.4 Privileged Determination - Privileged records that must be protected from general disclosure (e.g., records that are privileged because of attorney-client privilege, executive privilege, company proprietary privilege, etc.) shall be stamped "Privileged" on each page of the record so that unauthorized persons shall not gain access to them.

NOTE: All stamps identified within this procedure shall be no larger than 1/2" high and 3" long and shall be supplied by the LRC.

6.0 PROCEDURES (Continued)

6.1.1.5 Identify Reference Documents - Reference material cited in all final reports (reports do not include journal articles, bulletins, or professional papers) shall be listed and identified by accession number. All cited reference material shall be contained within the records system and shall be cross-referenced to the report. If the cited reference has not been previously submitted to the LRC, or if the LRC is not able to attain an accession number through the records system, the cited references shall be submitted to the LRC. The LRC shall submit the cited references to the Central Records Facility for processing. The Central Records Facility shall assign an accession number to each individual cited reference submitted, and shall notify the LRC of the accession numbers. The LRC shall notify the requesting individual of the accession numbers.

6.1.1.6 Published Reports - All reports published as a result of Project activities (reports do not include journal articles, bulletins, or professional papers) shall be required to receive an accession number prior to publication. The accession number shall be obtained through the LRC from the Central Records Facility Manager. The accession number shall be contained within the following statement printed inside the back cover or as part of the acknowledgement of the report (NOTE: Statement must be printed in the same format as follows):

> The following number is for OCRWM Records Management purposes only and should not be used when ordering this publication:
>
> Accession Number: NNA.YYMMDD.NNNN.

NOTE: Journal articles, bulletins, or professional papers generated as a result of Project activities must be submitted to the LRC for processing, but are not required to receive an accession number prior to publication.

6.1.1.7 Limited-Value and Non-Processed Materials - Limited-value or non-processed material shall not be maintained. Such materials should be disposed of as soon as they have served their use.

6.1.1.8 Administrative Procurement Records - Administrative Procurement Records are those that result from the procurement of administrative materials and services such as office furniture, office supplies, reproduction services, etc. Such records shall be transmitted to the LRC but will not be transferred to the Central Records Facility. They will be maintained in the LRC as the

6.0 PROCEDURES (Continued)

archival copy for REECo administrative purposes but are not considered records as defined in Section 4.22.

6.1.1.9 One-of-a-Kind and Special-Processed Records - One-of-a-Kind records and Special-Processed records that can be filmed on aperture cards (i.e., oversized maps, drawings, etc.) shall be submitted to the LRC. All special processed records that cannot be filmed on aperture cards, but can be generated in duplicate (i.e., magnetic tapes, negatives, etc.) shall be duplicated, and the original and a duplicate of the special processed record shall be submitted to the LRC. If the cost or difficulty in generating duplicates is prohibitive, those records shall be identified to the LRC and a single copy shall be submitted to the LRC.

6.1.1.10 Preliminary Draft Documents - Preliminary draft documents are limited-value material and shall not be processed into the Records Information System. The following requirements shall be adhered to when preparing a preliminary draft document:

6.1.1.10.1 Preliminary drafts are to be marked "PRELIMINARY DRAFT" in the upper right-hand corner of the cover and the front page of the document.

6.1.1.10.2 Project staff may circulate or receive preliminary draft documents using formal and informal transmittals.

6.1.1.10.3 Comments by a reviewer of preliminary drafts may be placed in the margins of the document.

6.1.1.10.4 Preliminary draft documents should not be maintained beyond the completion of a subsequent iteration.

6.1.1.11 Draft Documents - The following requirements shall be adhered to with regard to draft documents:

6.1.1.11.1 Draft documents that are transmitted within the Project for formal concurrence or are transmitted outside of the Project for review shall be collected and retained by the Project.

6.1.1.11.2 Comments received on concurrence drafts of documents shall be retained with the concurrence draft and the final documents.

6.1.1.11.3 Draft documents formally transmitted outside the Project for review and/or comment, as

6.0 PROCEDURES (Continued)

well as the comments received in response to such transmittals, shall be retained with the final document.

6.1.1.11.4 Comments on drafts of major Project documents, such as the Site Characterization Plan, shall be formally submitted (e.g., through Document Review Sheets) and not by returning the document with handwritten notes.

6.1.1.11.5 The review and comment format is to be used by the Project when a Project participant's draft document submitted for review and approval is rejected.

6.1.1.11.6 Nonfinal documents circulated for concurrence or signature, which did not become a final record due to objections or revisions by someone other than the original author, and in which the original author or others in the concurrence process have nonconcurred, are considered draft documents.

6.1.1.11.7 Draft documents shall be marked "Draft."

6.1.1.12 Review of Records - Prior to transmittal to the LRC, records shall be reviewed to ensure the following:

6.1.1.12.1 The record is complete and all of its attachments or enclosures are included. All blocks on records (including signature) are filled in or NA (not applicable) is entered.

NOTE: Records which state <u>on their face</u> that only applicable items should be marked shall not be required to have all blocks on the record filled in or NA entered.

6.1.1.12.2 Documents which may be transmitted in varying degrees of completeness may be processed to the system as part of the transmittal record (i.e., Standard Deficiency Reports, Document Review Sheets, Nonconformance Reports, Inspection Reports, draft documents sent for review, and documents being transmitted for signature).

6.1.1.12.3 Written/typed records are legible, reproducible, and microfilmable in accordance with the following:

6.0 PROCEDURES (Continued)

6.1.1.12.3.1 A clear and distinct image of the characters or pictorial information on the recording medium (paper) must be formed.

6.1.1.12.3.2 The record is recorded with an indelible medium, preferably black ink, against a light background. Pencil (lead) is not an acceptable means of recording information on a record that is to be submitted to the LRC.

NOTE: Certain data records shall be accepted in other than black ink. Such records shall be handled on a case-by-case basis.

6.1.1.12.3.3 The viewer must be able to read the record without guessing or magnification.

6.1.1.12.3.4 The record shall not contain correction fluid or correction tape of any kind.

6.1.1.12.3.5 Records shall not have any information scratched out and obliterated or other extraneous information hand written on the record with the exception of corrections made in accordance with Section 6.1.3 of this procedure. No information on any record shall be obliterated. If new information has been added to a record previously submitted to the LRC, it constitutes a new and separate record.

6.1.1.12.3.6 All stamps must be black ink and be no larger than 1/2" x 3." Stamps shall not intersect and/or obliterate any information on the page. If there is insufficient space on a page for a stamp, insert a Yucca Mountain Project Record Stamp Form (RE-7226), Exhibit XIII, in front of the

6.0 PROCEDURES (Continued)

page and place the stamp on the Record Stamp Form. All stamps required by this procedure will be supplied by the LRC.

6.1.1.12.3.7 No portion of any page shall be missing due to tearing or folding of record edges that may obliterate recorded information.

6.1.1.12.3.8 If a photocopy of a record is to be submitted, the generation of the copy submitted for processing must be as close to the original as possible and, preferably, not more than two generations from it (i.e., a copy of a copy of the original).

6.1.1.12.3.9 For correspondence which is generated by the REECo Record Source, send a photocopy of the original which is on official REECo memorandum or letter stationary with signatures. Do <u>not</u> send a carbon copy or a photocopy of a carbon copy. Do not send a copy stamped "original signed by..."

6.1.1.13 Identification of Best Available Copy

6.1.1.13.1 Some records may not meet all of the requirements outlined in Section 6.1.1.12. In this case, the best copy available shall be obtained for transmittal to the LRC. If necessary (e.g., the original is torn or folded), this submission may be a photocopy of the original (Section 6.1.1.12.3.8).

6.1.1.13.2 The Authenticator (for QA records) or the submitter (for non-QA records) shall determine and document that the copy being submitted to the LRC is technically complete, legible, and adequate for its intended purpose, or, if not, it shall be documented that the copy being submitted is the best copy available and the reasons why the copy is not technically completed, legible, and adequate for its intended

6.0 PROCEDURES (Continued)

purpose, or cannot be replaced or regenerated shall be provided on the documentation. Records and records packages that are not technically complete, legible, and adequate for their intended purpose, or cannot be replaced or regenerated shall be designated as either QA: N/A or IND. This documentation shall be submitted to the LRC with the record.

6.1.1.13.3 When transmitting records marked BEST AVAILABLE COPY or records that are not technically complete or not adequate for their intended purpose, list each record on the Records Administrator Submittal Form, RE-7200/7201, Exhibit V/Exhibit VI, and indicate that each such record is the BEST AVAILABLE COPY.

6.1.2 PREPARATION OF RECORD PACKAGES

6.1.2.1 Table of Contents Preparation - A Table of Contents shall be created for each record package and interim record package that inventories the record package and lists the individual records or groups of records that constitute the record package. The Table of Contents shall list, at its conclusion, the accession numbers of any related interim data packages that had been previously submitted.

6.1.2.2 Record Package Identifier - Record packages shall be identified as such by placing a Record package Identifier "___.X.X.X" (where "___" is the three-digit alpha code used to identify the type of record package [i.e., QRP, Quality Related Packages; ARP, Administrative Record Packages; RTP, Record Turnover Packages (non-quality related materials), or PRP, Personal Records Packages] and "X" is the WBS number corresponding to the subject activity [to whatever level is appropriate]), in the upper right-hand corner of the first page of the Table of Contents.

6.1.2.3 Supporting Materials - Documents generated in the process of preparing a report, study, or other document or generated during any other Project activity that has been completed shall be submitted to the LRC as packages with an RTP.X.X.X package identifier. These documents are not required to meet the other requirements of this procedure, but shall be clearly identified as "supporting" or "backup" material and shall be inventoried on the Table of Contents. These records packages shall be designated QA: N/A.

6.0 PROCEDURES (Continued)

6.1.2.4 QA Level Designation - The highest QA Level (QA I, QA II, QA III, N/A (not applicable), or IND (indeterminate) corresponding to the documents contained within the package shall be placed in the upper right-hand corner of the first page of the Table of Contents immediately below the Record Package Identifier.

6.1.2.5 Authentication - A statement shall be provided on the first page of the Table of Contents of each QA record package attesting to the fact that the record package has been authenticated in accordance with the Project QAP, Section 17.0, and Section 6.1.1.1 of this procedure.

6.1.2.6 Review of Record Package Segments - The individual record package segments that constitute the record package shall be reviewed to ensure that they have been prepared in accordance with Section 6.1.1.12 and Section 6.1.2 of this procedure.

6.1.2.7 Privileged Determination - Privileged Record Packages that must be protected from general disclosure (e.g., records that are privileged because of attorney-client privilege, executive privilege, company proprietary privilege, etc.) shall be stamped PRIVILEGED on the Table of Contents and on each page of the Record Package to be so protected so that unauthorized persons shall not gain access to them.

NOTE: All stamps identified within this procedure shall be no larger than 1/2" high and 3" long and shall be supplied by the LRC.

17-13 6.1.3 CORRECTIONS TO RECORDS AND RECORD PACKAGES PRIOR TO TRANSMITTAL - Corrections to completed written/typed records and record packages that have not been processed shall be made by scribing a single line though the incorrect information using an indelible medium, preferably black ink, and entering the correct information in close proximity. The correction shall include the date and initials or signature of the person within the originating organization authorized to make such corrections. Erasers, correction fluid, or correction tape of any type shall not be used as a form of correcting information on records.

6.1.4 TRANSMITTAL OF RECORDS AND RECORD PACKAGES TO THE LRC

17-16 6.1.4.1 Individual Records - Completed, individual records (including records that will become part of a records package) shall be forwarded to the LRC no later than 10 working days after the date of completion or receipt. All individual QA Records must be properly authenticated before they are processed by the LRC. Each record shall be listed on a Yucca Mountain Project Records Administrator Submittal Form, RE-7200/7201, Exhibit V/

6.0 PROCEDURES (Continued)

Exhibit VI. The Submittal Form shall contain a submittal number which consists of the cost center number, the last two digits of the current calendar year (i.e., 89), and the submittal sequence number. The submittal sequence number shall be maintained in each office by the Records Administrator. The form shall contain the following information for each record listed.

- Item Number.
- Originator Name.
- Identification Number (if applicable).
- Document Date (date record created).
- Title/Subject.
- QA Designation.
- WBS Number.
- Page Count.

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6.1.4.2 Record Packages - Each Record Package shall contain a Table of Contents and be listed on the Records Administrator Submittal Form, RE-7200/7201, Exhibit V/Exhibit VI. The Submittal Form shall contain the originator or validator name, the record package date (the earliest date of any record in the package), a title/subject, page count, identification number (if applicable), QA designation, and record package/WBS identifier and number. Upon completion of the Submittal Form, the completed record package, along with the Submittal Form and the Table of Contents, shall be transmitted to the LRC within 10 working days after the closeout of the record package. The Table of Contents to all QA record packages must contain a statement of authentication before they shall be processed by the LRC.

7-12

6.1.4.3 Interim Record Package Submittals - Interim record packages (data) shall be compiled and submitted to the LRC at 45 day intervals to ensure that all records are protected, accessible, and retrievable for Project use. ords (data) submitted as interim record packages shall be resubmitted to the LRC with the completed activity package. Interim record packages and completed record packages shall reference, by accession number, any previous record package submittals related to that activity (see Section 6.1.2.1 of this procedure). Any exceptions to the 45-day records (data) submittal requirement must be approved in writing by the Manager,

6.0 PROCEDURES (Continued)

Project Office, before the end of the first 45-day period of data acquisition.

6.1.5 CORRECTIONS TO PREVIOUSLY PROCESSED RECORDS AND RECORD PACKAGES - The LRC shall be immediately notified of any errors in previously processed records or record packages and the complete, corrected records or record packages shall be transmitted to the LRC. The original records or record packages shall remain in the system, but the database shall state that the new records or parts of a record package supersedes the old records or parts of a record package.

6.2 TURNOVER OF PERSONAL WORKING FILES - All personal working files shall be turned over to the LRC upon completion of an activity, upon termination of employment, or as otherwise directed by the DOE Project Office. Such files shall not be required to meet the requirements of this procedure.

17-6 6.3 RECORD COLLECTION, RECEIPT CONTROL, REVIEW, AND PROCESSING - The LRC shall collect records (hereinafter, all references to "record(s)" shall include individual records as well as record packages), except those stated as limited-value or non-processed material, from its participating organization, and shall perform the functions outlined in the following sections.

6.3.1 RECORD RECEIPT INSPECTION - The LRC shall perform receipt inspection as follows:

6.3.1.1 Log all records received for transmission to the Central Records Facility.

6.3.1.2 Verify that the records identified by the responsible individuals as records to be created have been received by the LRC for processing.

6.3.1.3 Ensure that the records meet all of the requirements of Sections 6.1.1 and 6.1.2 of this procedure.

6.3.1.4 Ensure that records generated by REECo personnel adhere to the following requirements:

6.3.1.4.1 The records are acceptable for processing and microfilming in accordance with Exhibit IV of this procedure.

6.3.1.4.2 The records are complete; they contain all pages and all referenced attachments and/or enclosures, and all cited references in published reports include the accession number in the citation.

6.3.1.4.3 All blocks on records (including signature) are filled in or NA (not applicable) is entered.

6.0 PROCEDURES (Continued)

NOTE: Records which state on their face that only applicable items should be marked shall not be required to have all blocks on the record filled in or NA entered.

6.3.1.4.4 The records are properly signed and QA records and record packages have been properly authenticated. Compare signatures or initials to the required record signature authentication list.

6.3.1.4.5 The best copy available of records have been submitted; that each page of the records that do not meet legibility standards have been stamped BEST AVAILABLE COPY.

6.3.1.4.6 Individual records indicate a WBS number in the upper right-hand corner of the first page of the record.

6.3.1.4.7 Individual records indicate a QA designation in the upper right-hand corner of the first page of the record.

6.3.1.4.8 Record packages indicate a Record Package Identifier and a QA Level in the upper right-hand corner of the first page of the Table of Contents.

6.3.1.5 Ensure that all records listed on the Table of Contents to a record package are contained within the record package.

6.3.1.6 Ensure that the best copy available of records purchased or received from entities outside of the Project has been submitted; stamp each page of such record BEST AVAILABLE COPY.

6.3.1.7 Ensure that current records are not duplicates; remove exact duplicates of current records from the records received prior to submittal to the CRF. Indicate that the record is a duplicate on the receipt log.

NOTE: Records within record packages that have been previously processed shall be included in and transmitted with the record package.

6.3.1.8 Ensure that records that have been previously processed are indicated on the Table of Contents of the record package (e.g., by listing the accession numbers of those records).

6.0 PROCEDURES (Continued)

6.3.2 PROBLEM RESOLUTION

6.3.2.1 Whenever possible, the LRC shall resolve record discrepancies with the Record Source through the Records Administrator. LRC personnel shall not make corrections to records; the Record Source shall make the actual corrections. Corrections shall be made in accordance with section 6.1.3 of this procedure.

6.3.2.2 If a discrepancy cannot be resolved through direct interaction with the Record Source and the LRC, the record shall be rejected. Unacceptable records shall be returned to the Records Administrator with the LRC Record Rejection Form (RE-7204C), Exhibit VII, stating the reason(s) for rejection and the actions necessary for record acceptance. The LRC shall contact the responsible individual every 10 working days to obtain a corrected copy of the record. The LRC shall notify the REECo Information Management Manager concerning each record that has been rejected. If the discrepancy cannot be resolved within thirty (30) working days, the LRC shall notify the Technical Project Officer through the REECo Information Management Manager for resolution.

6.3.2.3 Upon correction, the corrected record shall be transmitted to the LRC for processing. If no further discrepancies are discovered, the LRC shall process and transmit the record to the Central Records Facility.

6.3.2.4 The LRC shall retain a copy of the LRC Record Rejection Form (RE-7204C), Exhibit VII, and a copy of the record in a "Records Rejected" file. If a better or corrected copy of the record is not available, the original record shall be returned along with the rejection form to the LRC. An explanation shall be provided on the rejection form by the Record Source or Records Administrator as to why the record could not be corrected. If it is stated that the problem with the record is legibility, the LRC shall stamp each page of the record BEST AVAILABLE COPY before submitting the record to the Central Records Facility. If no further discrepancies are discovered, the LRC shall process the record along with the rejection form. The rejection form shall constitute evidence that a better copy of the record was not available.

6.3.3 RECORD TRANSMITTAL TO THE CENTRAL RECORDS FACILITY - The LRC shall perform the following activities:

6.3.3.1 Copy all duplicatable records and protect the duplicates from deterioration, loss, larceny, or damage in accordance with the REECo Yucca Mountain Project Quality Assurance Program Plan, 568-DOC-115, Section 17.0, AP-1.7Q, and this procedure. Place duplicated records

6.0 PROCEDURES (Continued)

in archival file folders and place in archival boxes by LRC-Records Management System Number. Place these boxes of duplicated records in the two hour fire-rated safe until the Transmittal Form, RE-7214C/7215C, Exhibit VIII/Exhibit IX, is signed by CRF personnel and a copy returned to the LRC. The signed transmittal form documents that the records listed on it have been received and accepted by the Central Records Facility.

6.3.3.2 Prepare the LRC Transmittal Form, RE-7214C/7215C, Exhibit VIII/Exhibit IX, listing the records being transmitted to the Central Records Facility. The transmittal form shall include a title/subject or other descriptive data, the number of pages, the record date, whether or not the items are records or a record packages, any identifying numbers, and ar special instructions or remarks. For individual reco :s marked BEST AVAILABLE COPY or that are not technically complete or adequate for their intended purpose, ensure that they are accompanied by proper documentation that no better copy is available and identify them as the best available copy on the transmittal form.

6.3.3.3 List and transmit only those records generated or initially received by REECo offices.

6.3.3.4 Insert a Special Instruction Sheet, RE-7216, Exhibit X, to describe and indicate the location of One-of-a-Kind records that are being retained and protected at the LRC until permanent central Project record storage is available.

6.3.3.5 Insert a Special Instruction Sheet, RE- .6, Exhibit X, to identify those special-processed records that are being transmitted under separate cover.

6.3.3.6 Attach a copy of a Special Instruction Sheet, RE-7216, Exhibit X, to Special Processed records that can be duplicated or filmed on aperture cards (i.e., oversized maps and logs) and forward those records under separate cover to the Central Records Facility.

6.3.3.7 Package the records and Transmittal Form, RE-7214C/7215C, Exhibit VIII/Exhibit IX, and transmit them to the Central Records Facility within 10 working days of receipt.

6.4 PROTECTION AND SAFEKEEPING OF DOCUMENTS AND RECORDS - All Project records shall be managed in a manner to meet the requirements for QA Level I records. The silver halide masters shall be the official Project record for all records that can be microfilmed. The requirements outlined in the REECo Yucca Mountain Project Quality Assurance Program Plan, Section 17.0, 36 CFR Part 1234, and in the following sections shall apply to all records.

6.0 PROCEDURES (Continued)

17-10

6.4.1 REECO PERSONNEL

6.4.1.1 Measures shall be taken by REECo Personnel to ensure that documents that are to become Project records (both QA and non-QA) are protected from deterioration, loss, larceny, or damage through preventing exposure to environmental extremes (e.g., light, humidity, temperature, etc.) and providing protection from fire, water damage, insects, mold, and rodents. It is recommended that, whenever possible, such documents are protected through storing copies in sufficiently remote locations to prevent hazard.

6.4.1.2 In addition, measures shall be taken by REECo Personnel to ensure that documents (that are to become Project records), records, record package segments, and record packages are protected as follows:

6.4.1.2.1 Liquids shall be placed a reasonable distance from records to protect against accidental spillage.

6.4.1.2.2 Smoking materials (e.g., cigars, cigarettes, pipes) shall be placed a reasonable distance from records to protect against any damage which could result.

6.4.1.2.3 Magnetic records shall be placed a reasonable distance from sources of magnetic fields (including telephones).

6.4.1.2.4 When not in use, documents, records, record package segments, and record packages shall be locked in a secured area (e.g., locking desk drawer, locking file cabinet, office with a locking door, etc.) to prevent larceny.

6.4.1.2.5 If possible, the original of each completed record, record package segment, or record package shall be forwarded to the LRC for storage and protection immediately upon completion of that record, record package segment, or record package (a copy may be retained for reference, if necessary).

17-10

6.4.2 REECO LOCAL RECORDS CENTER (LRC) - Measures shall be taken by the LRC to ensure that records are protected from deterioration, loss, larceny, and damage in accordance with the REECo Yucca Mountain Project Quality Assurance Program Plan, Section 17.0, the requirements outlined previously in Section 6.4.1 of this procedure, and the following requirements:

6.0 PROCEDURES (Continued)

17-14

6.4.2.1 Provisions shall be made in the storage arrangement to prevent damage from moisture, temperature, and pressure. Normal room temperatures and humidity levels which prohibit condensation of moisture shall be maintained. Measurements may be recorded (e.g., using a hygrothermograph) to ensure extremes in temperature and humidity are not occurring. Proper equipment (e.g., dehumidifier, air-conditioner) shall be installed to prevent fluctuations in temperature and humidity.

6.4.2.2 Provisions shall be made to prevent damage from infestation of insects and rodents. Food shall be prohibited in the storage facility. Monthly sampling of records shall be administered to ensure no damage has occurred, and periodic preventive exterminations shall be performed as necessary.

6.4.2.3 Records shall be stored in a two-hour, fire-rated safe that meets the standards of the National Fire Protection Association (NFPA) 232-1975 and subsequent updates from the time they are received from the Records Administrator until the Transmittal Form, RE-7214/7215, Exhibit VIII/Exhibit IX, transferring the records to the Central Records Facility is signed by Central Records Facility personnel and a copy returned to the LRC. The signed Transmittal Form verifies that the Central Records Facility has received and accepted the records and that the requirement for dual storage of records has been met.

6.4.2.4 Records for which dual storage has been verified can be removed from the two-hour, fire-rated safe, placed in archival folders and filed in steel file cabinets or on shelving in archival containers.

6.4.2.5 Provisions shall be made for special processed records (e.g., radiographs, photographs, negatives, microfilm, magnetic material, etc.), in accordance with magnetic media manufacturers recommendations to prevent damage from excessive light, stacking, electromagnetic fields, temperature, and humidity.

6.4.2.6 One-of-a-Kind and Special-Processed records that are being stored within the LRC shall be maintained in a two-hour, fire-rated safe until such a time that they can be processed and transmitted to the Central Records Facility.

6.4.2.7 The LRC shall acknowledge receipt of the diazo copy of the microfilm by forwarding a signed copy of the transmittal form to the Project Microfilming Center.

6.4.2.8 Each microfilm reel shall be inspected to ensure that all REECo records listed in the LRC Record Transmittal

6.0 PROCEDURES (Continued)

Forms, RE-7214C/RE-7215C, Exhibit VIII/Exhibit IX, have been microfilmed. The inspection shall be documented by including the accession and reel numbers in the LRC Records Management System.

6.5 ACCESS TO STORAGE FACILITIES AND RECORDS - Measures shall be established to preclude the entry of unauthorized personnel in the storage area(s) of the LRC, and a list shall be maintained, which shall include the Chief, Project Control Branch, Project Office (or designee), that designates those personnel who shall have access to the files. Rules governing access to and control of the files shall be developed, and the method for maintaining control of and accountability for records within the LRC shall be provided.

17-11

6.5.1 All REECo Yucca Mountain Project records stored in the LRC shall be maintained in areas to which access is controlled by LRC staff.

6.5.2 Only the following shall have direct access to the records stored in the LRC.

- REECo Yucca Mountain Project Technical Project Officer
- REECo Yucca Mountain Project Information Management Office Manager
- REECo Yucca Mountain Project LRC staff
- Department of Energy, Chief, Project Control Branch, Project Office (or designee)

The names of the persons holding these positions shall be on a list which is posted on the door to the record storage area.

6.5.3 All other persons shall retrieve records from the LRC based on the procedures described in Sections 6.8.1 through 6.8.4.

6.5.4 All REECo Yucca Mountain Project records are filed in the LRC in sequence based on the LRC-RMS number. When records/record packages are removed from the file by authorized personnel (see Section 6.5.2) they shall be replaced with an OUT card that shall contain the LRC-RMS number, the name of the person removing the record/record package, and date removed from the file. When the record/record package is returned to the file, the OUT card shall be removed and initialed and dated by the person doing the refiling. The completed OUT card shall be filed by RMS-LRC number in an OUT card file and retained for future use.

6.5.5 All microfilm reels are filed by reel number. All aperture cards are filed by Accession Number. The microfilm number is assigned by the Project Microfilming Center. The Accession Number is assigned by the Central Records Facility. When either a microfilm reel or aperture card is removed from the file by authorized persons (see Section 6.5.2) it shall be replaced by an OUT card that shall contain the reel number or Accession Number, the name

6.0 PROCEDURES (Continued)

of the person removing the reel or card, and the date removed. When the microfilm reel or aperture card is returned to the file, the OUT card shall be removed and initialed by the person doing the refiling. The completed OUT card shall be filed by reel or Accession Number in an OUT card file and retained for future use.

17 12 6.6 LOST OR DAMAGED RECORDS - Replacement, restoration, or substitution of records shall be accomplished within 90 days following determination that either a record has been lost or a record has been damaged to a degree that it is no longer complete or legible.

6.6.1 If a record is lost or damaged prior to being submitted to the LRC, the Record Source shall be responsible to obtain a duplicate record or repair the original record to the standards required by this procedure.

6.6.2 If a record is lost or damaged after being submitted to the LRC, the LRC shall notify the appropriate Records Aministrator who shall be responsible to obtain a duplicate copy from the Record Source, from the official office files, or from one of the recipients of the record and submit that copy to the LRC.

6.6.3 If the Central Records Facility loses or damages a record received from the LRC, the LRC shall replace it with a copy of the duplicate which the LRC maintains in its files.

6.7 RECORDS DISPOSITION

6.7.1 HARD COPY RECORDS - The Central Records Facility shall be responsible for maintaining hard copies of records. REECo records shall be maintained in the LRC and shall not be disposed of until direction and guidance for disposal is obtained from the DOE Office of Civilian Radioactive Waste Management (OCRWM) or the DOE Project Office.

6.7.2 RECORD RETENTION - Records shall be classified as permanent and shall be microfilmed to meet the requirements for permanent storage which meets or exceeds the retention periods for post-closure and lifetime records. The Central Records Facility shall be responsible for the storage of a Project microfilm silver halide master and Special-Processed records in a remote storage facility and for long-term storage of Special-Processed and One-of-a-Kind records. The Deputy Director, Information and Resources Management/OCRWM shall be responsible for the storage of a Project microfilm silver halide master in an underground microfilm storage facility.

6.7.3 RECORDS PROTECTED UNDER THE PRIVACY ACTS OR LAWS GOVERNING CLASSIFIED MATERIALS - Records protected under the Federal Privacy Acts or laws governing classified materials, including personnel records, medical records, and designated military records, shall not be entered into the Records Information System. They shall be maintained in accordance with applicable federal requirements.

6.0 PROCEDURES (Continued)

6.8 RETRIEVAL AND DISTRIBUTION - Records shall be retrieved through the REECo LRC.

6.8.1 REECO YUCCA MOUNTAIN PROJECT PERSONNEL RETRIEVAL - REECo personnel may request a duplicate of the hard copy of any Yucca Mountain Project record from the REECo LRC. Upon receipt of such a request, the LRC shall access the record through the Records Information System and, using the microfilm number, shall print a hardcopy from microfilm. In addition, within the LRC, REECo personnel may obtain access to and view a microfilm copy of any record contained within the Records Information System.

Copies of records will be provided in a timely manner dependent upon record or media type and the volume of the records to be provided. Blowbacks from microfilm or photocopies from hardcopy can be reproduced in a relatively short time. Non-Paper, Special-Processed Records will require more work and time to reproduce. One-of-a-Kind records must be viewed at the LRC or at another designated location.

6.8.2 NON-REECO YUCCA MOUNTAIN PROJECT PARTICIPANT RETRIEVAL - Requests from persons outside REECo, but participating in the Yucca Mountain Project, shall be referred to the employee's LRC, the Central Records Facility, or the REECo Technical Project Officer.

6.8.3 RETRIEVAL FOR THE GENERAL PUBLIC - Requests from the general public shall be referred to the Yucca Mountain Project Office.

6.8.4 RETRIEVAL FOR LITIGATION DISCOVERY - Requests for records for litigation discovery will be filled according to REECo Yucca Mountain Project Division Administrative Procedure TPO-3, "Procedure for Litigation Discovery Process of Yucca Mountain Project Records."

17-19 6.9 TRAINING

6.9.1 Training of records management personnel shall include the requirements for managing QA records as delineated in AP-1.7Q, this procedure, and the REECo Yucca Mountain Project Records Management Manual.

6.9.2 Training of LRC management and staff will be provided through the Manager responsible for records management for the T&MSS Contractor (or designee) in coordination with the T&MSS Training Branch. Training shall be requested through the Chief, Project Control Branch, Project Office (or designee).

6.9.3 Training shall be provided to the Record Sources and Records Administrators and other personnel managing and administering the REECo Yucca Mountain Project Records Management Program by the LRC in conjunction with the REECo Yucca Mountain Project Training Administrator.

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6.0 PROCEDURES (Continued)

6.9.4 REECo personnel responsible for developing and conducting the training shall retain accurate and complete documentation of the training. These records shall contain the following elements: (1) Qualification statements and position descriptions, (2) date of training sessions, (3) training attendance record, (4) names of instructors, (5) instructors' lesson plans, (6) list of course objectives, (7) record of the actual training received, (8) and hardcopy of any material distributed during the course.

6.9.5 Personnel Qualification and Training Records are Quality Assurance records, but they are subject to the access restrictions of the Federal Privacy Act of 1974. They shall be marked PRIVILEGED and a copy retained in the originating office's files. A second copy shall be made and transmitted to the REECo Yucca Mountain Project Training Administrator to fulfill the requirements for dual storage of QA records. Access to these records will be controlled based on the Federal law. (See Exhibit II, letter from Carl P. Gertz to Distribution, Management of Training Records, May 8, 1989.)

6.10 FACILITIES AND STAFFING

6.10.1 Each Project participant shall provide the facilities and staffing necessary for all LRC functions including collection, receipt, preparation, duplication, and storage of records, and the temporary storage of One-of-a-Kind and Special-Processed records that cannot be transmitted to the Central Records Facility for processing. Based on REECo Yucca Mountain Project activity and records generated, a budget is prepared by the REECo Yucca Mountain Project Information Management Manager and is submitted to the REECo Technical Project Officer projecting personnel needs for the LRC.

6.10.2 When working on REECo Yucca Mountain Project records, the Records Administrators are considered an extension of the LRC staff.

6.11 QUALITY ASSURANCE RECORDS MANAGEMENT SYSTEM (QARMS) - The QARMS system shall be maintained for retrieval of quality-related records contained within it until all such records have been processed into the Records Information System and guidance for discontinuing use of the QARMS is received from the DOE Project Office.

6.12 BACKLOG (RETROFIT) RECORDS - REECo Project records generated, purchased, received, and/or maintained prior to original issuance of Revision 0 of AP-1.7Q, dated August 15, 1988, shall not be required to meet the requirements of this procedure, but shall be processed by the LRC pending guidance from the DOE Project Office (or designee) into the Records Information System pending acceptance by the Central Records Facility. However, such records that do not meet the requirements of this procedure must be designated as QA: N/A or IND.

7.0 QUALITY ASSURANCE RECORDS

7.1 The completed authentication signature list on Form RE-7257. See Section 5.4.3.

7.2 The list of records to be generated as a result of Project activities. See Section 5.4.5.

7.3 Completed Form RE-7200, Records Administrator Submittal Form.

7.4 Completed Form RE-7201, Records Administrator Submittal Form Continuation Sheet.

8.0 EXHIBITS

8.1 Letter from R. F. Pritchett to Carl P. Gertz, Creation of a Project-Wide Local Records Center (LRC) in Area 25 of the Nevada Test Site (NTS) (NN1-1989-1671), April 13, 1989, Exhibit I.

8.2 Letter from Carl P. Gertz to Distribution, Management of Training Records, May 8, 1989, Exhibit II.

8.3 Letter from R. F. Pritchett to Carl P. Gertz, Yucca Mountain Project Administrative Procedure (AP) 5.2Q, (Information Flow to and from the Yucca Mountain Project Technical Database), and AP 5.3Q (Information Flow into the Project Reference Information Base), May 15, 1989, Exhibit III.

8.4 Criteria for Acceptance of Source Records for Processing and Microfilming, Appendix A of AP-1.7Q, Rev. 2, Exhibit IV.

8.5 RE-7200 Records Administrator Submittal Form, Exhibit V.

8.6 RE-7201 Records Administrator Submittal Form Continuation Sheet, Exhibit VI.

8.7 RE-7204C LRC Record Rejection Form, Exhibit VII.

8.8 RE-7214C LRC Record Transmittal Form, Exhibit VIII.

8.9 RE-7215C LRC Record Transmittal Form Continuation Sheet, Exhibit IX.

8.10 RE-7216 Special Instruction Sheet, Exhibit X.

8.11 RE-7224 LRC Record Request Form, Exhibit XI.

8.12 RE-7225 LRC Record Request Continuation Sheet, Exhibit XII.

8.13 RE-7226 Yucca Mountain Project Record Stamp Form, Exhibit XIII.

9.0 REECO ADMINISTRATIVE PROCEDURES

9.1 The REECo Administrative procedure for each office in the Yucca Mountain Project records management program shall be the REECo Yucca Mountain

9.0 REECO ADMINISTRATIVE PROCEDURES (Continued)

Project Records Management Manual, IM-AP-LRC-01, developed and provided by the LRC.

9.2 The REECo LRC shall develop administrative procedures in accordance with this procedure for the processing of Yucca Mountain Project records received from Records Administrators and transferring of these records to the Central Records Facility.

EXHIBIT I

Letter from R. F. Pritchett to Carl P. Gertz, Creation of a Project-Wide Local Records Center (LRC) in Area 25 of the Nevada Test Site (NTS) (NN1-1989-1671), April 13, 1989.
Page 1 of 1

Reynolds Electrical & Engineering Co., Inc.
Post Office Box 98521 • Las Vegas, NV 89193-8521

IN REPLY REFER TO
510-01-94
APR 13 1989

WBS #1.2.9.1.4
QA: N/A

Carl P. Gertz, Project Manager
Yucca Mountain Project Office
Nevada Operations Office
U.S. Department of Energy
Post Office Box 98518
Las Vegas, NV 89193-8518

CREATION OF A PROJECT-WIDE LOCAL RECORDS CENTER (LRC) IN AREA 25 OF THE NEVADA TEST SITE (NTS) (NN1-1989-1671)

We are in receipt of your letter dated March 24, 1989, above subject, regarding direct input by our NTS matrix support departments to the Area 25 LRC. Since we have guidelines and continual training established for REECo record sources and department coordinators, we wish to continue to submit all our records through the REECo LRC. This will allow us to maintain our standard of quality and continue our consistency in Table of Content input and cross referencing.

Any questions concerning the records should be directed to Christine Thompson at 794-7308.

R F Pritchett

R. F. Pritchett, Manager
Yucca Mountain Project Division
YMP Technical Project Officer

RFP:MCT:mb

cy:
Central Files, M/S 530
D. L. Fraser, REECo, M/S 555
D. R. Warriner, REECo, M/S 404
M. D. Cotter, SAIC, M/S 517

REECo
AN EG&G COMPANY

W009T

EXHIBIT II

Letter from Carl P. Gertz to Distribution, Management of Training Records, May 8, 1989.

Page 1 of 2

Department of Energy
Nevada Operations Office
P. O. Box 98518
Las Vegas, NV 89193-8518

WBS # 1.2.9.1.4
"QA: N/A"

MAY 08 1989

Leslie J. Jardine, LLNL, Livermore, CA
Larry R. Hayes, USGS, Las Vegas, NV
Richard J. Herbst, LANL, Los Alamos, NM
Thomas O. Hunter, SNL, 6310, Albuquerque, NM
John H. Nelson, SAIC, Las Vegas, NV
Joseph C. Calovini, H&N, Las Vegas, NV
Robert F. Pritchett, REECo, Las Vegas, NV
Richard L. Bullock, F&S, Las Vegas, NV
Addanki M. Sastry, MACTEC, Las Vegas, NV

MANAGEMENT OF TRAINING RECORDS

The Yucca Mountain Project has requirements for documenting the training of personnel involved in quality assurance activities; however, the Privacy Act of 1974 precludes the public release of such information. The local records centers are directed to reject any documentation of this nature.

Such records should be retained either by the cognizant manager, the personnel departments, or the training departments. Dual storage should be provided for these records. During an audit or surveillance, the cognizant manager can vouch for the qualification and training records of the employee in question, but cannot disclose that documentation.

Should an employee sign a waiver of his/her Privacy Act rights with regard to training and qualification, that individual's training records may be sent to the Local Records Center for transmission to the Central Records Facility for processing. A copy of the waiver must be included with the records sent. Otherwise, such records should not be included in the records management system until further notice.

Carl P. Gertz, Project Manager
Yucca Mountain Project Office

YMP:DLB-3582

EXHIBIT II (Continued)

Letter from Carl P. Gertz to Distribution, Management of Training Records, May 8, 1989.

Page 2 of 2

MAY 08 1989

Multiple Addressees -2-

cc:
J. K. Statler, SAIC, Las Vegas, NV
B. C. Hopkins, SAIC, Las Vegas, NV
Stephen Metta, SAIC, Las Vegas, NV
M. C. Cotter, SAIC, Las Vegas, NV
B. A. Bryan, LLNL, Livermore, CA
S. E. Sharpton, SNL, 6310, Albuquerque, NM
Gabriel Ortiz, LANL, Los Alamos, NM
Margaret Warner, USGS, Denver, CO
Lillie Cox, F&S, Las Vegas, NV
Mary Thompson, REECo, Las Vegas, NV
J. D. Verden, H&N, Las Vegas, NV

REECO
NWMSI OFFICE/QA
MAY 9 9 23 AM '89

EXHIBIT III

Letter from R. F. Pritchett to Carl P. Gertz, Yucca Mountain Project Administrative Procedure (AP) 5.2Q, (Information Flow to and from the Yucca Mountain Project Technical Database), and AP 5.3Q (Information Flow into the Project Reference Information Base), May 15, 1989.

89-001316

Reynolds Electrical & Engineering Co., Inc.

Post Office Box 98521 • Las Vegas, NV 89193-8521

IN REPLY REFER TO
510-01-182

WBS # 1.2.9.1.4
"QA: N/A"

MAY 15 1989

Carl P. Gertz, Project Manager
Yucca Mountain Project Office
Nevada Operations Office
U.S. Department of Energy
Post Office Box 98518
Las Vegas, NV 89193-8518

ATTENTION: Wendy R. Dixon, Director
Project and Operations Control Division

YUCCA MOUNTAIN PROJECT ADMINISTRATIVE PROCEDURE (AP) 5.2Q, (INFORMATION FLOW TO AND FROM THE YUCCA MOUNTAIN PROJECT TECHNICAL DATA BASE) AND AP 5.3Q (INFORMATION FLOW INTO THE PROJECT REFERENCE INFORMATION BASE)

We have determined that our scope of work does not originate information covered under AP 5.2Q or AP 5.3Q. Therefore, we have not developed implementing procedures.

If you have questions, please contact M. Christine Thompson at 794-7308.

R F Pritchett

R. F. Pritchett, Manager
Yucca Mountain Project Division
YMP Technical Project Officer

RFP:MCT:mb

cy:
Central Files, M/S 530, THRU
D. L. Fraser, REECo, M/S 555
L. M. Smith, DOE/NV, M/S 505
M. A. Fox, REECo, M/S 408
R. C. Crisp, SAIC, M/S 517

MAY 15 1 36 PM '89
REECO NNWST OFFICE/QA
REECO
an EG&G company

W009T

EXHIBIT IV

Criteria for Acceptance of Source Records for Processing and Microfilming, Appendix A of AP-1.7Q, Rev. 2.

Page 1 of 4

APPENDIX A

Criteria for Acceptance of Source Records for Processing and Microfilming

A.1 PURPOSE

The purpose of these criteria is to ensure that the microfilm record copy of Project records is of a quality sufficient to survive as archivally sound, legible, and therefore, retrievable, for its entire retention period.

A.2 SCOPE

These criteria apply to all records submitted to the records system for microfilming and retention, except for one-of-a-kind items defined as "records that cannot be duplicated or microfilmed by currently available technology."

A.3 DEFINITIONS

A.3.1 SOURCE RECORD

A source record is any record submitted to the records system for processing, microfilming, and retention that is the source of the microfilm record copy.

A.3.2 MICROFILM RECORD COPY

A microfilm record copy is the silver halide microfilm of each issue of a record.

A.4 CRITERIA

It is imperative that source records submitted to the records system be of the highest possible quality. Records submitted to the records system must be of sufficient quality to produce a microfilm image with a quality index level of no less than 5.0 (quality index level 8.0 is preferred) as specified in AIIM/NMA MA-23-1983, "Practice for Operational Procedures/ Inspection and Quality Control of First-Generation, Silver-Gelatin Microfilming of Documents."

EXHIBIT IV (Continued)

Criteria for Acceptance of Source Records for Processing and Microfilming, Appendix A of AP-1.7Q, Rev. 2.

Page 2 of 4

YUCCA MOUNTAIN PROJECT
ADMINISTRATIVE PROCEDURE
CONTINUATION PAGE

N-AD-001B
11/88

Title

AP-1.7Q RECORDS MANAGEMENT

A-2 of A-4

APPENDIX A (continued)

Criteria for acceptability of source records are as follows:

1. Record must be legible; there must be a clear and distinct image with a sharp contrast between the character or pictorial information recorded and the recording medium (paper).

2. Record must be complete; no portions of a page can be missing due to tearing or folding of record edges that obliterates recorded information.

3. Data on drawings shall be recorded in black ink. Blackline drawings are preferred to blueprint sepia copies. If blue line or sepia drawings are the only copies available, they must not be folded but rather rolled for storage or transmittal. Store them on stick files or in flat (plan) files. Creasing the paper creates marks which can obscure data recorded on the drawing.

4. Typewritten or printed text shall be printed using clean multi-strike ribbons.

5. Records shall be sent unbound or loose-leaf when possible.

6. If photocopies are submitted as the record copy, they must be legible. The copy image must be aligned properly; optically skewed images are not acceptable; the angle of the record must be truly reproduced on the photocopy; square corners must appear at right angles.

7. No photo reductions of data are acceptable unless the image is very clear and easily legible. Letters and other characters must be spaced so that the background areas between them are approximately equal. Words shall be clearly separated by space equal to the height of the lettering. Space between letters shall be at least 0.06 inches.

8. Avoid using colored paper as a recording medium. The contrast between the data recorded and the color of the paper is not distinct enough to produce a microfilm image of sufficient quality.

9. NCR-type paper ("no carbon required" or other paper requiring pressure from writing implement, typewriter or printer to produce a

Effective Date	Revision	Supersedes	Page	No.
5/23/89	2	Rev. 1	32 of 34	AP-1.7Q

W009T

RE-2201 (10/71)

EXHIBIT IV (Continued)

Criteria for Acceptance of Source Records for Processing and Microfilming, Appendix A of AP-1.7Q, Rev. 2.

Page 3 of 4

YUCCA MOUNTAIN PROJECT
ADMINISTRATIVE PROCEDURE
CONTINUATION PAGE

N-AD-0018
11/88

Title

AP-1.7Q RECORDS MANAGEMENT

A-3 of A-4

APPENDIX A (continued)

legible impression) copies are not acceptable. Only the white first page (original) of an NCR form is acceptable.

NOTE: The only exception to this rule are oversize records which are of a color that can be filmed on a 35mm planetary camera for aperture card production. These exceptions require special handling and shall be considered only on a case-by-case basis. Approval by the responsible manager is required prior to submittal.

10. If the original records are not available for submittal to the records center, the generation of the copy submitted for processing must be as close to the original as possible and not more than two generations from it (i.e., a copy of a copy of the original). Each copy generation removed from the original is of poorer quality.

11. Do not fold drawings, maps, or other "oversize" records (i.e., records with the minimum dimension greater than 14 inches). Such oversize records shall be rolled for transmittal to the records center.

12. Data recorded on drawings shall be completed in accordance with ANSI Y 14.2, the latest issue. As a minimum, data on drawings must comply fully with the project standards for preparation and control of engineering and architectural drawings, latest issue.

A.5 GENERAL OPERABILITY TEST

If the record to be microfilmed is photocopied and the photocopy is easily and clearly legible, it shall be acceptable for microfilming.

If the quality of source records submitted does not meet the above guidelines, and shall, therefore, not produce a microfilm image with a quality index level of no less than 5.0, then the records center shall return the records to the submitter identifying the required corrections to the records before they are acceptable.

If the corrections cannot be made, then the records center must determine whether the records shall be microfilmed and retained, and if so,

Effective Date	Revision	Supersedes	Page	No.
5/23/89	2	Rev. 1	33 of 34	AP-1.7Q

W009T

EXHIBIT IV (Continued)

Criteria for Acceptance of Source Records for Processing and Microfilming, Appendix A of AP-1.7Q, Rev. 2.

Page 4 of 4

YUCCA MOUNTAIN PROJECT
ADMINISTRATIVE PROCEDURE
CONTINUATION PAGE

N-AD-001B
11/88

Title

AP-1.7Q RECORDS MANAGEMENT

A-4 of A-4

APPENDIX A (continued)

must authorize microfilming and retention of inferior quality records. The original hard copy record of these items shall be marked "Best Available Copy," and shall be processed for retention.

A.7 REFERENCES

AIIM (NMA) MS-23-1983, Practice for Operational Procedures/Inspection and Quality Control of First-Generation, Silver-Gelatin Microfilm of Documents.

ANSI Y 14.2, Drafting Practices Line Convention and Lettering.

Effective Date	Revision	Supersedes	Page	No.
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W009T

RE-2201 (10/71)

EXHIBIT V

RE-7200, Records Administrator Submittal Form.
Page 1 of 1

PRELIMINARY DRAFT

LOGO

REYNOLDS ELECTRICAL & ENGINEERING CO., INC.
YUCCA MOUNTAIN PROJECT
RECORDS ADMINISTRATOR-LOCAL RECORDS CENTER
SUB TRANSMITTAL FORM

DEPARTMENT NO. _____
YR _____
TRANSMITTAL NO. _____
DATE _____
PAGE _____ OF _____

ITEM NO.	ORIGINATOR NAME	DOC. I.D. NO.	DOC. DATE	TITLE/SUBJECT	QA LEVEL	WBS NO.	NO. PAGES	R	P	FOR LRC USE RMS NO

RC _____ *SIGNATURE _____ ORGANIZATION _____ DATE _____
(Print/Type Name)

DEPT. MANAGER _____ SIGNATURE _____ ORGANIZATION _____ DATE _____
(Print/Type Name)

*THIS SIGNATURE AFFIRMS THAT THE DOCUMENTS PROVIDED IN THIS TRANSMITTAL ARE COMPLETE AND READY FOR PROCESSING BY THE LOCAL RECORDS CENTER (LRC).

DISTRIBUTION
1 Yucca Mountain Project Local Records Center (LRC), M/S 404
2 Returned to Originator by LRC
3 Suspense Copy (Dept.)

Received by LRC _____ DATE _____

RE-7200 (10/87)

EXHIBIT VI

RE-7201, Records Administrator Submittal Form Continuation Sheet.
Page 1 of 1

PRELIMINARY DRAFT

LOGO

REYNOLDS ELECTRICAL & ENGINEERING CO., INC.

Records Administrator YUCCA MOUNTAIN PROJECT
Sub ~~LOCAL RECORDS CENTER~~

~~TRANSMITTAL~~ FORM - CONTINUATION SHEET

DEPARTMENT NO. _____
YR _____ TRANSMITTAL NO. _____
DATE _____
PAGE _____ OF _____

ITEM NO.	ORIGINATOR NAME	DOC. I.D. NO.	DOC. DATE	TITLE/SUBJECT	QA LEVEL	WBS NO.	NO. PAGES	R	P	FOR LRC USE RMS NO.

DISTRIBUTION
1 Yucca Mountain Project Local Records Center (LRC), MS 404
2 Returned to Originator by LRC
3 Suspense Copy (Dept.)

RE 7201 (10/89)

W009T

EXHIBIT VII

RE-7204C, LRC Record Rejection Form.
Page 1 of 1

REYNOLDS ELECTRICAL & ENGINEERING CO., INC.
YUCCA MOUNTAIN PROJECT
LOCAL RECORDS CENTER

RECORD REJECTION FORM

DATE: / /

TO: _____

FROM: _____

SUBJECT: RECEIPT INSPECTION OF THE FOLLOWING RECORD:

_____

_____

THE ABOVE-MENTIONED RECORD HAS BEEN INSPECTED AND WAS DETERMINED NOT ACCEPTABLE FOR FURTHER PROCESSING AND INCLUSION IN THE LOCAL RECORDS CENTER (LRC) FOR THE REASON(S) MARKED BELOW:

____ INCOMPLETE (PAGES OR ATTACHMENTS MISSING).

____ INCOMPLETE DATA AVAILABLE FOR RECORD INDEXING.

____ RECORD QUALITY IS POOR AND WILL NOT PROVIDE ADEQUATE MICROFILM IMAGE.

____ OTHER (SPECIFY): _____

_____

PLEASE TAKE THE APPROPRIATE ACTION AND RETURN THE RECORD TO THE LRC, M/S 404, ON OR BEFORE: / /

COMMENT: THE LRC STAFF IS AVAILABLE TO ASSIST YOU IN PREPARING RECORDS FOR PROCESSING.

RECORD SOURCE REPLY:

____ ACCEPTABLE COPY ATTACHED

____ BEST AVAILABLE COPY; PROCESS AS IS.

_____ RECORD SOURCE SIGNATURE

_____ DATE

RE-7204C (10/88)

EXHIBIT VIII

RE-7214C, LRC Record Transmitt Form.
Page 1 of 1

WBS 1.2.9.1.4.R
QA: NA

REYNOLDS ELECTRICAL & ENGINEERING CO., INC.
YUCCA MOUNTAIN PROJECT
LOCAL RECORDS CENTER

RECORD TRANSMITTAL FORM

DATE: _____ _____ PAGE: 1

TO: YUCCA MOUNTAIN PROJECT CENTRAL REC S FACILITY (CRF)

FROM: REECO LOCAL RECORDS CENTER, M/S 404

THE FOLLOWING LIST REPRESENTS THE RECORDS BEING TRANSMITTED BY THIS MEMO TO THE YUCCA MOUNTAIN PROJECT CRF FOR PROCESSING.

PKG/ REC	RECORD DATE	RECORD TITLE/SUBJECT	RECORD PAGE COUNT	RECORD ID NO. (IF APPLICABLE)

TRANSMITTED TO THE YUCCA MOUNTAIN PROJECT CENTRAL RECORDS FACILITY (CRF) BY:

LRC PERSONNEL SIGNATURE _____ DATE _____

YUCCA MOUNTAIN PROJECT CRF RECEIPT ACKNOWLEDGEMENT (RETURN SIGNED COPY TO LRC).

CRF PERSONNEL SIGNATURE _____ DATE _____

RE-7214C (10/88)

W009T

EXHIBIT IX

RE-7215C, LRC Record Transmittal Form Continuation Sheet.
Page 1 of 1

WBS 1.2.9.1.4.R
QA: NA

REYNOLDS ELECTRICAL & ENGINEERING CO., INC.
YUCCA MOUNTAIN PROJECT
LOCAL RECORDS CENTER

RECORD TRANSMITTAL FORM

DATE: _____ PAGE: ___

PKG/ REC	RECORD DATE	RECORD TITLE/SUBJECT	RECORD PAGE COUNT	RECORD ID NO. (IF APPLICABLE)

RE 7215C (10/88)

W009T

EXHIBIT X

RE-7216, Special Instruction Sheet.
Page 1 of 1

WBS # _____
QA: _____

Reynolds Electrical & Engineering Co., Inc.

YUCCA MOUNTAIN PROJECT

SPECIAL INSTRUCTION SHEET

THIS SHEET IS USED TO IDENTIFY A RECORD THAT IS NOT ENCLOSED FOR ONE OF THE FOLLOWING REASONS:

[ ] ONE-OF-A-KIND RECORD

[ ] SPECIAL-PROCESSED

[ ] OTHER: _____

THE FOLLOWING INFORMATION IS A BIBLIOGRAPHIC INDEX OF THE RECORD AND THE LOCATION OF WHERE THE HARD COPY OR MICROFILMED COPY OF THE RECORD CAN BE OBTAINED:

DESCRIPTION: _____

LOCATION: _____

RE-7216 (HSB)

EXHIBIT XI

RE-7224, LRC Record Request Form.
Page 1 of 1

WBS # _____
QA _____

REYNOLDS ELECTRICAL & ENGINEERING CO., INC.
YUCCA MOUNTAIN PROJECT
LOCAL RECORDS CENTER

RECORD REQUEST

PAGE 1 OF _____

REQUESTER NAME		REQUEST DATE
PHONE NO.	MAIL STOP	ORGANIZATION/DEPARTMENT
LRC STAFF SIGNATURE		DATE

RECORD ID	ACCESSION # OR LRC RMS #	MICROFILM REEL/FRAME/A	PAGES COPIED	DATE COPIED

TRANSMITTAL:

TO: _____

FROM: REECo YUCCA MOUNTAIN PROJECT LOCAL RECORDS CENTER

LRC STAFF SIGNATURE _____ DATE: _____

PLEASE SIGN AND DATE IN THE SPACE BELOW AND RETURN COPY 1 TO THE LRC.
I ACKNOWLEDGE RECEIPT OF THE RECORD(S) LISTED ABOVE AND/OR ON THE ATTACHED SHEET.

SIGNATURE	DATE

1. RETURN TO LRC 2. RETAIN BY REQUESTER 3. SUSPENSE BY LRC

RE-7224 (10/89)

W009T

EXHIBIT XII

RE-7225, LRC Record Request Continuation Sheet.
Page 1 of 1

REYNOLDS ELECTRICAL & ENGINEERING CO., INC.

YUCCA MOUNTAIN PROJECT
LOCAL RECORDS CENTER

RECORD REQUEST
(Continuation Sheet)

PAGE _____ OF _____

RECORD ID	ACCESSION # OR LRC RMS #	MICROFILM REEL/FRAME/A	PAGES COPIED	DATE COPIED

1. RETURN TO LRC 2. RETAIN BY REQUESTER 3. SUSPENSE BY LRC

RE-7225 (10/89)

EXHIBIT XIII

RE-7226, Yucca Mountain Project Record Stamp Form.
Page 1 of 1

WBS # _____
QA _____

REYNOLDS ELECTRICAL & ENGINEERING CO., INC.

YUCCA MOUNTAIN PROJECT
LOCAL RECORDS CENTER

RECORD STAMP FORM

(THIS FORM IS TO BE USED FOR THE PLACEMENT OF STAMPS IF THE STAMP WILL COVER OR OBLITERATE DATA AND/OR INFORMATION ON THE RECORD PAGE)

RECORD DATE _____

DESCRIPTION _____

_____

_____

PAGE_____(THE PAGE # FOR WHICH THIS FORM IS USED)

(PLACE STAMPS IN SPACE BELOW)

RE 7226 (10/88)

W0091

REECO/YMP QUALITY ASSURANCE
QUALITY PROCEDURES INDEX

INFORMATION COPY

May 26, 1989

Document Number	Rev.	Document Name	Date
QP 1.0	6	Organization	05-26-89
QP 1.1	3	Resolution of Disputes	05-26-89
QP 1.2	1	Stop Work Order	05-26-89
QP 2.0	5	Quality Assurance Program	05-26-89
QP 2.1	4	Certification of Inspection and Test Personnel	05-26-89
QP 2.2	5	Personnel Qualification and Certification	05-26-89
QP 2.3	1	Management Assessment	05-26-89
QP 2.4	1	Indoctrination and Training	05-26-89
QP 3.0	3	Scientific Investigation Control and Design Control	05-26-89
QP 3.1	2	**DELETED**	
QP 3.2	1	Change Control	05-26-89
QP 3.3	1	Technical Assessment Review	05-26-89
QP 4.0	6	Procurement Document Control	05-26-89
QP 5.0	5	Instructions, Procedures, and Drawings	05-26-89
QP 5.1	1	Preparation, Review and Approval of Quality Procedures	05-26-89
QP 5.2	1	Preparation, Issue, and Control of Work Procedures	05-26-89
QP 5.3	0	Preparation, Review and Approval of Implementing Procedures	05-26-89
QP 6.0	5	Document Control	05-26-89
QP 7.0	6	Control of Purchased Materials, Equipment, and Services	05-26-89
QP 7.2	3	**DELETED**	
QP 7.3	3	**DELETED**	
QP 7.4	2	**DELETED**	
QP 8.0	4	Identification and Control of Materials, Parts, and Components	05-26-89
QP 9.0	4	Control of Processes	05-26-89
QP 9.1	3	Welding Procedure Qualification	05-26-89
QP 9.2	3	Welder Certification	05-26-89
QP 10.0	5	Inspection	05-26-89
QP 10.1	5	Surveillance	05-26-89
QP 11.0	5	Test Control	05-26-89
QP 12.0	6	Control of Measuring and Test Equipment	05-26-89
QP 13.0	5	Handling, Shipping, and Storage	05-26-89
QP 14.0	5	Inspection, Test and Operating Status	05-26-89
QP 15.0	6	Nonconformances	05-26-89
QP 16.0	6	Corrective Action	05-26-89
NQP 16.1	2	**DELETED**	
QP 16.2	2	Trend Analysis	05-26-89
QP 17.0	4	Quality Assurance Records	05-26-89
QP 18.0	6	Audits	05-26-89
NQP 18.1	1	**DELETED**	

Reynolds Electrical & Engineering Co., Inc.	TITLE ORGANIZATION	NO QP 1.0
		PAGE 1 of 4
YUCCA MOUNTAIN PROJECT	APPROVED R F Pritchett	REV 6
QUALITY PROCEDURE	Technical Project Officer	DATE 5/26/89
		DIST. 23

INFORMATION COPY

Revision 6: This revision supersedes QP 1.0 Revision 5, 03-16-89.

1.0 PURPOSE AND SCOPE

1.1 This procedure delineates those organizational elements of the REECo Yucca Mountain Project, both of the YMP Division and REECo matrix support organizations, who have direct responsibility for the implementation of the requirements. This procedure also establishes the responsibilities of these organizational entities.

2.0 APPLICABILITY

2.1 The organization and responsibilities outlined in this procedure apply to all Yucca Mountain Project (YMP) activities.

3.0 REFERENCES

3.1 REECo Quality Assurance Program Plan, (QAPP) 586-DOC-115, for the Yucca Mountain Project.

3.2 REECo Organizational Chart.

3.3 QP 1.2, Stop Work Order.

4.0 DEFINITIONS

4.1 Nevada Test Site Support Contractor - Organizations (Fenix & Scisson, Holmes & Narver, Reynolds Electrical & Engineering Co., Inc.) directly under contract to the U.S. Department of Energy, Nevada Operations Office (DOE/NV) for activities at the NTS that support YMP activities.

4.2 Participating Organizations - The U.S. Government agencies (U.S. Geological Survey), National Laboratories (Los Alamos National Laboratory, Sandia National Laboratories, Lawrence Livermore National Laboratory), and major organizations (Science Applications International Corporation) that participate directly in YMP activities.

APPROVED: _____ DATE 5/25/89
PROJECT QUALITY ASSURANCE MANAGER

DEFINITIONS (Continued)

4.3 Appendix A, Terms and Definitions, of 568-DOC-115, contains general definitions applicable to YMP.

5.0 RESPONSIBILITIES

5.1 This procedure QP 1.0, Organization, consists of an explanation of the organizational entities responsible for the management and implementation of the REECo Quality Assurance Program and the relationships of those individuals and/or organizational elements responsible for the performance of activities affecting quality. The responsibilities of key organization elements, being functional in nature, are included in Section 6.0, Procedures.

6.0 PROCEDURE

6.1 General

6.1.1 This procedure provides a summary of Reynolds Electrical & Engineering Co., Inc. (REECo) organization and responsibilities assigned to key members of the organization. Specific quality related responsibilities are identified in individual procedures or instructions.

6.1.2 REECo utilizes, in part, a matrix management organizational concept to support the YMP.

6.1.2.1 The administrative responsibility, authority, and accountability for REECo matrix personnel, remain with the respective REECo organizational element.

6.1.2.2 The functional responsibility and accountability of the project rest with the YMP TPO.

6.1.2 The REECo Organizational Chart, Figure 2 of QAPP 568-DOC-115, denotes the lines of authority, communication, and responsibility assigned to key Quality related project functions for the YMP

6.2 Functional Descriptions

6.2.1 General Manager - The General Manager has overall responsibility for the REECo Yucca Mountain Project, furnishes guidance, and delegates responsibility and authority to the YMP Division Manager for all YMP related tasks.

6.2.2 YMP Division Manager/Technical Project Officer (TPO) - The YMP Division Manager also functions as the Technical Project Officer, who reports directly to the General Manager, and is responsible for all YMP activities.

PROCEDURES (Continued)

6.2.2.1 The TPO is the one point contact between REECo, The DOE, Participating Organizations, and other NTS Support Contractors on all Project activities, and functions in the same capacity for all REECo internal organizations.

6.2.2.2 The TPO is responsible to the YMPO Director to ensure that the Project activities for which REECo is responsible are performed in accordance with Project requirements, assures the review and approval of all work instructions or requests required for the implementation of REECo/YMP assigned tasks, and provides approval and commitment of REECo personnel for YMP activities.

6.2.3 Division and Department Managers - The Division and Department Managers are responsible to implement, control, and perform all work tasks necessary for NTS support.

6.2.3.1 Division and Department Managers are responsible to implement, document, and maintain quality activities for their organizational units in accordance with plans, procedures, and guidelines developed by the PQA organization.

6.2.3.2 Division and Department Managers are responsible to assure that their quality activities are made evident by written procedures published in the appropriate division/department Procedures Manual.

6.2.3.3 Division and Department Managers, as a minimum, establish activities to incorporate specific YMP requirements into their operations.

6.2.4 Project Quality Assurance Manager (PQAM) - The Project Quality Assurance Manager is responsible for administering the REECo Quality Assurance Program in conformance with the requirements of 568-DOC-115 for specific YMP activities.

6.2.4.1 The PQAM furnishes guidance and assistance to the YMP division and other division/departments of the Company in matters relating to Quality Assurance activities.

6.2.4.2 The PQAM provides for a system of periodic audits for appraisals of division or department activities to assure compliance with the Quality Assurance Program.

6.2.4.3 The PQAM provides for a system of review of division or department written procedures used to implement quality requirements and supervises the activities of the Project QA (PQA) Department.

PROCEDURES (Continued)

6.2.4.4 The PQAM assists others in implementing quality activities, maintains a Quality Assurance Reporting System, conducts special tests and certifications and represents the Company in Quality interfaces with other agencies and contractors.

6.2.4.5 The PQAM shall have the authority to stop (or cause to be stopped) unsatisfactory work through established channels, as provided by QP 1.2.

6.2.5 Persons and organizations performing QA functions shall have sufficient authority and organizational freedom to identify quality problems; to initiate, recommend, or provide solutions; to verify implementation of the solution.

6.2.5.1 Such persons and organizations performing QA functions report to a management level at which this required authority and organizational freedom are provided including sufficient independence from cost and schedule.

6.2.5.2 These personnel shall have the responsibility and authority to verify the adequacy and effectiveness of QA plans, requirements, and QA program implementation by REECo and its subordinate organizations.

7.0 QA RECORDS

7.1 The REECo/YMP organizational charts shall be considered QA Records and maintained in accordance with QP 17.0.

8.0 EXHIBITS

8.1 NONE

Reynolds Electrical & Engineering Co. Inc.	TITLE RESOLUTION OF DISPUTES	NO. QP 1.1
YUCCA MOUNTAIN PROJECT		PAGE 1 of 3
QUALITY PROCEDURE	APPROVED R F Pritchett	REV 3
	Technical Project Officer	DATE 5-26-89
		DIST. 23

INFORMATION COPY

Revision 3: This revision supersedes QP 1.1 Revision 2, 03-16-89.

1.0 PURPOSE AND SCOPE

1.1 The purpose of this procedure is to provide a means for the resolution of disputes arising between QA personnel and others in matters concerning quality. This procedure establishes the authority for and delineates the progressively higher levels of management to be involved in the resolution of any such disputes.

2.0 APPLICABILITY

2.1 The responsibilities and authority established herein apply to all Yucca Mountain Project (YMP) activities.

3.0 REFERENCES

3.1 REECo Quality Assurance Program Plan, (QAPP) 568-DOC-115, for the Yucca Mountain Project.

3.2 QP 17.0, Quality Assurance Records.

4.0 DEFINITIONS

4.1 Appendix A, Terms and Definitions, of 568-DOC-115, contains general definitions.

5.0 RESPONSIBILITIES

5.1 Project Quality Assurance Manager (PQAM) - The Project Quality Assurance Manager is responsible for administering the REECo Quality Assurance Program in conformance with the requirements of 568-DOC-115, and providing guidance and assistance in matters relating to Project Quality Assurance activities.

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PROJECT QUALITY ASSURANCE MANAGER

RESPONSIBILITIES (Continued)

5.1.1 The PQAM shall provide resolution in disputes involving quality within or between organizations, and represent the company in interfaces with other agencies and contractors in matters pertaining to quality assurance.

5.2 Division and Department Managers - The Division and Department Managers are responsible for implementing and maintaining quality activities for their organizational units in accordance with requirements prescribed by Project Quality Assurance (PQA) and 568-DOC-115 and providing resources for resolving disputes involving quality within their organization.

6.0 PROCEDURE

6.1 Personnel Authority

6.1.1 The persons and organizations performing QA functions shall have sufficient authority and organizational freedom to:

- Identify quality problems;
- Initiate, recommend or provide solutions;
- To stop (or cause to be stopped) unsatisfactory work through established channels.

6.1.2 Such persons and organizations performing QA functions shall report to a management level at which this required authority and organizational freedom are provided, including sufficient independence of cost and schedule.

6.2 Resolution of Disputes

6.2.1 Disputes in matters concerning quality arising in Departments shall be reported to the REECo/YMP Quality Assurance Manager for resolution.

6.2.1 The Department originating the dispute shall report the dispute to the PQAM by memo, stating the nature of the dispute, the Department's position, and the facts (reasons) supporting that position.

6.2.2 The PQAM shall resolve the dispute by evaluating the position of the Department (parties to the dispute) and the supporting facts to determine whether or not they respond to the requirements established in the QAPP 568-DOC-115, applicable procedures and/or design documents, i.e., drawings and specifications.

6.2.3 The PQAM shall report the resolution of the dispute to the Department by memo, providing a statement of the requirements which support the resolution position and the source of those requirements.

PROCEDURES (Continued)

6.2.4 If the parties in the dispute do not concur with the resolution provided by the PQAM, the PQAM shall submit the details of the dispute by letter to the DOE/YMP QA Manager for resolution.

7.0 QA RECORDS

7.1 All correspondence concerning the dispute and its resolution shall be considered QA records and shall be processed in accordance with QP 17.0

8.0 EXHIBITS

8.1 NONE

Reynolds Electrical & Engineering Co., Inc.	TITLE STOP WORK ORDER	NO. QP 1.2
YUCCA MOUNTAIN PROJECT QUALITY PROCEDURE		PAGE 1 of 5
	APPROVED R F Pritchett	REV. 1
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Revision 1: This revision supersedes QP 1.2, revision 0, 01-03-89

1.0 PURPOSE AND SCOPE

1.1 This procedure establishes the REECo methodology and responsibilities for suspending a Yucca Mountain Project (YMP) activity that has been identified as a significant condition adverse to quality requiring correction prior to resumption of the affected activity.

2.0 APPLICABILITY

2.1 This procedure applies to REECo/YMP Quality Assurance (PQA) personnel who observe or are made cognizant of a significant condition adverse to quality regarding a Quality Assurance (QA) Level I or II activity performed by REECo or a REECo supplier or contractor.

3.0 REFERENCES

3.1 REECo Quality Assurance Program Plan, (QAPP) 586-DOC-115, for the Yucca Mountain Project.

3.2 QP 16.0, Corrective Action.

3.2 QP 17.0, Quality Assurance Records.

4.0 DEFINITIONS

4.1 Stop Work Order (SWO) - A letter issued by TPO personnel to cause the suspension of an activity that has been determined to be a condition significantly adverse to quality.

4.2 Condition Adverse to Quality - An all-inclusive term used in reference to any of the following: failures; malfunctions; deficiencies; defective items; and nonconformances.

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DEFINITIONS (Continued)

4.3 Significant Conditions Adverse to Quality - A condition adverse to quality which, if not corrected, could have a serious affect on safety or operability.

4.4 Appendix A, Terms and Definitions, of 568-DOC-115, contains general definitions.

5.0 RESPONSIBILITIES

5.1 Technical Project Officer (TPO) - The Technical Project Officer is responsible for approving recommendations to issue or close SWOs as appropriate and for issuing SWOs.

5.2 Project Quality Assurance Manager (PQAM) - The Project Quality Assurance Manager is responsible for evaluating Significant Deficiency Reports (SDRs) to determine the need for SWOs and preparing the stop work notification letter for REECo/YMP activities.

5.3 Project Quality Assurance (PQA) Personnel - Project Quality Assurance Personnel are responsible for immediately notifying the PQAM of a significant condition adverse to quality which may warrant a recommendation to stop all or specifically identified portions of work relating to the affected activity. The TPO shall be notified if the PQAM is not available.

6.0 PROCEDURE

6.1 Identification of Stop Work Conditions

6.1.1 PQA staff personnel who observe or are made cognizant of potential stop work conditions in the course of performing QA audits or surveillances of project activities or suppliers, conducting document reviews, or during the normal course of business shall immediately notify the PQAM.

6.1.1.1 Potential stop work conditions should be reported any time they are observed.

6.1.2 This notification shall be made by personal contact, telephone conversation, or telex.

6.1.3 The initiator shall provide clear, concise, objective information, including the requirements violated and the reason the SWO should be issued.

6.1.4 A Corrective Action Request (CAR) shall be prepared in accordance with QP 16.0 by the initiating PQA staff member to document the potential stop work conditions.

PROCEDURES (Continued)

6.2 Initial Evaluation of Identified Condition

6.2.1 The CAR shall be promptly provided to the PQAM who shall meet with the TPO to determine the need for the SWO.

6.2.2 If the evaluation of the CAR reveals a significant condition adverse to quality or repeatedly unacceptable performance, and the PQAM determines the affected activity must be stopped to preclude further degradation of the situation, a stop work recommendation letter shall be prepared.

6.3 Stop Work Action

6.3.1 The PQAM shall prepare the stop work recommendation letter and shall include the following information:

- Specific description of the activities or portions of the activities to be stopped.
- Description of the deficiency.
- Responsible organization.
- Action required to resolve the adverse condition and prevent recurrence.
- Effective date of the SWO.
- Instructions regarding the content and due date of the response to the SWO.

6.3.2 The stop work recommendation letter shall be forwarded to the TPO for review and approval.

6.3.3 If the TPO approves the stop work recommendation, he/she shall authorize the preparation of a stop work notification letter which shall be issued to the responsible organization.

6.3.3.1 When the TPO determines that a recommendation so stop work in not justified, he/she shall so advise the PQAM in writing and provide the justification for voiding the stop work recommendation letter.

6.3.3.2 The related CAR shall be processed and closed in accordance with QP 16.0.

6.3.4 Where the stop work action is against a supplier/contractor the TPO shall issue the stop work notification letter to the affected supplier's management via the cognizant purchasing agent or contract administrator.

6.3.5 The SWO notification letter shall provide the same information as the corresponding stop work recommendation letter.

PROCEDURES (Continued)

6.4 Response to Stop Work Orders

6.4.1 The SWO shall require the responsible organization to notify the TPO that activities within the scope of the SWO have been stopped.

6.4.2 Additionally, the responsible organization shall be instructed to respond to the SWO and associated CAR within 20 working days of the effective date of the SWO.

6.4.3 The responsible organization shall document the following in the appropriate blocks of the CAR and shall return the CAR to PQA.

- The cause of the adverse condition,
- The corrective action planned to correct the condition,
- The estimated date of completion,
- The measures to be taken to preclude recurrence of the adverse condition.

6.5 Stop Work Order Closure

6.5.1 The PQAM shall review the SWO, CAR, and related response to determine the extent of required verification activities.

6.5.2 Based on the date(s) established by the responsible organization for completion of required adequacy of required corrective action, the PQAM shall schedule and perform verification of the adequacy of required corrective action and the measures taken to prevent recurrence.

6.5.3 Upon completion of verification activities with acceptable results, the CAR shall be processed for closure in accordance with QP 16.0.

6.5.4 The PQAM shall review the documentation relating to the SWO verification activities and the closed CAR and if all required actions have been verified as acceptable, the PQAM shall notify the TPO of the acceptability of the corrective action measures.

6.5.5 The TPO shall take the necessary measures to ensure that the responsible organization is formally notified that the SWO and associated CAR have been closed and that continuation of the affected activities is permitted.

6.5.6 The SWO close out letter with the associated CAR shall be processed and distributed to the responsible organization.

PROCEDURE (Continued)

7.0 QA RECORDS

7.1 Stop Work Recommendation Letters and associated Corrective Action Requests, Stop Work Notification Letters, Letters Voiding the Stop Work Order Recommendations, Notification Letters to close the Stop Work Orders, and other associated documentation relating to the Stop Work Orders resulting from the implementation of this procedure shall be considered QA Records and shall be handled in accordance with QP 17.0.

8.0 EXHIBITS

8.1 NONE

Reynolds Electrical & Engineering Co., Inc.	TITLE QUALITY ASSURANCE PROGRAM	NO QP 2.0
YUCCA MOUNTAIN PROJECT QUALITY PROCEDURE		PAGE 1 of 3
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Revision 5: This revision supersedes QP 2.0, Revision 4, 03-17-89.

1.0 PURPOSE AND SCOPE

1.1 The purpose of this procedure is to describe the REECo/Yucca Mountain Project (YMP) Quality Assurance program developed for implementation and application of the quality requirements applicable to the YMP. Implementing procedures have been developed to implement the QA criteria set forth in the Quality Assurance Program Plan (QAPP), 568-DOC-115 to provide control over all QA Level I and II activities affecting quality.

1.2 This procedure addresses the organizational responsibilities and implementation of the QA Program for the YMP.

2.0 APPLICABILITY

2.1 The Quality Assurance Program applies to all REECo/YMP Quality Level I and II activities.

3.0 REFERENCES

3.1 YMP/88-9, Quality Assurance Plan.

3.2 REECo Quality Assurance Program Plan, (QAPP) 568-DOC-115, for the Yucca Mountain Project.

3.3 QP 1.0, Organization.

3.4 QP 2.3, Management Assessment.

3.5 QP 2.4 Indoctrination and Training.

3.6 QP 17.0, Quality Assurance Records.

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PROJECT QUALITY ASSURANCE MANAGER

PROCEDURE (Continued)

4.0 DEFINITIONS

4.1 Appendix A, Terms and Definitions, of QAPP 568-DOC-115, contains general definitions.

5.0 RESPONSIBILITIES

5.1 REECo organizations, both Yucca Mountain Division and matrix support organizations, given direction to perform tasks for the Project, are responsible for the achievement and maintenance of quality for those tasks to the level specified by the work instructions, criteria letters, drawings, specifications, or other documents.

5.2 REECo Project Quality Assurance (PQA) - Project Quality Assurance is responsible for verifying the quality of the work for tasks performed by REECo/YMP.

5.3 Organizational management responsibilities are as specified in QP 1.0, and provide for the assurance that activities affecting quality are performed in accordance with documented and approved procedures by personnel trained and qualified to perform those activities.

6.0 PROCEDURE

6.1 REECo has established a Quality Assurance Program Plan for the YMP activities.

6.1.1 This document is published as QAPP 568-DOC-115 and responds to the YMP Quality Assurance Plan, YMP/88-9, as the basis for requirements to be complied with.

6.2 The QAPP 568-DOC-115, contains the eighteen (18) criteria elements in the order and manner specified in YMP/88-9.

6.2.1 This document provides quality requirements for REECo assigned YMP tasks in a manner commensurate with the criticality and complexity of the operations involved in the Project.

6.2.2 As stated in the Section 5.0 of this procedure, compliance with all requirements of QAPP 568-DOC-115 is mandatory for all REECo organizations performing YMP tasks.

6.3 Quality Procedures are developed and shall be utilized to implement the requirements of QAPP 568-DOC-115

6.3.1 The procedures shall provide the instructions necessary to accomplish activities under suitably controlled conditions and shall provide for the assurance that all prerequisites have been satisfied.

DEFINITIONS (Continued)

6.3.1 Procedures governing activities at the YMP shall be prepared within the guidelines of a graded Quality Assurance Program as described in Section II of QAPP 568-DOC-115.

6.3.1.1 The procedures shall identify the documents that will be submitted for review and approval action.

6.3.1.2 Review of QA documentation shall be recorded on a checklist or form that specifies acceptability criteria and indicates conformance with the QA program.

6.4 Prior to performing activities that affect quality, personnel shall be fully indoctrinated and trained in accordance with the requirements of QP 2.4.

6.4 PQA shall perform an overview of the QA Level I and II activities of all YMP organization, including subcontractors doing supportive work, by performing the following:

- Review of QAPP's
- Quality audits to verify the adequacy and compliance of QA programs.
- Surveillance of activities affecting quality to verify compliance to the requirements of the QA program.

6.5 PQA shall review QA documentation developed by those organizations performing activities affecting quality on the YMP.

6.6 The YMP Technical Project Officer shall perform management Assessments in accordance with QP 2.3 to determine the effectiveness and adequacy of the QA program.

7.0 QA RECORDS

7.1 The YMP QA Procedures shall be considered QA Records and maintained and processed in accordance with QP 17.0.

8.0 EXHIBITS

8.1 NONE

Reynolds Electrical & Engineering Co., Inc.	TITLE CERTIFICATION OF INSPECTION AND TEST PERSONNEL	NO QP 2.1
		PAGE 1 of 7
YUCCA MOUNTAIN PROJECT	APPROVED	REV. 4
QUALITY PROCEDURE	R7 Pritchett	DATE 5/26/89
	Technical Project Officer	SIZE 23

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Revision 4: This revision supersedes QP 2.1, Revision 3, 01-03-89.

1.0 PURPOSE AND SCOPE

1.1 The purpose of this procedure is to delineate the criteria and the method for qualifying and certifying inspection and test personnel.

1.2 This procedure addresses the selection, education, experience, orientation, training, evaluation and certification of personnel for inspection and testing on the Yucca Mountain Project (YMP).

2.0 APPLICABILITY

2.1 This procedure applies to inspection and test personnel performing inspection and testing for QA Levels I and II activities on the YMP.

3.0 REFERENCES

3.1 REECo Quality Assurance Program Plan, (QAPP) 568-DOC-115, for the Yucca Mountain Project.

3.2 QP 17.0, Quality Assurance Records.

4.0 DEFINITIONS

4.1 Appendix A, Terms and Definitions, of QAPP 568-DOC-115, contains general definitions.

5.0 RESPONSIBILITIES

5.1 The Responsible Organization shall be responsible for the following:

5.1.1 Designating those inspection and test activities that require qualified inspection and test personnel.

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PROJECT QUALITY ASSURANCE MANAGER

RESPONSIBILITIES (Continued)

5.1.2 Establishing written procedures for the qualification of inspection and test personnel in accordance with this procedure and for the assurance that only those personnel who meet the established requirements are permitted to perform inspection and test activities.

5.1.3 Providing for the indoctrination and training necessary for the qualification of personnel who perform inspection and test activities.

5.1.4 Issuing the Inspection and Test Personnel Certification, Exhibit I, attesting to the qualification of personnel.

5.2 Project Quality Assurance (PQA) - The Project Quality Assurance shall verify compliance with the requirements of this procedure through audits and/or surveillances.

6.0 PROCEDURE

6.1 Functional Qualifications

6.1.1 The responsible organizations management shall provide for three levels of qualification depending on the complexity of the functions involved.

6.1.2 The requirements for each level are not limiting with regard to organizational position or professional status but, rather with regard to functional activities.

6.1.2.1 A Level I person shall be capable of performing and documenting the results of inspections or tests which are required to be performed in accordance with documented procedures, acceptance standards, and/or industry practices as defined in user's written procedures.

6.1.2.2 A Level II person shall have all the capabilities of a Level I person for the inspection or test category or class being performed.

6.1.2.2.1 Additionally, a Level II person shall have demonstrated capabilities in planning inspections and tests; in setting up tests, including preparation and set up of related equipment, as appropriate; in supervising and certifying lower level personnel; and in evaluating the validity and acceptability of inspection and test results.

6.1.2.3 A Level III person shall have all the capabilities of a Level II person for the inspection or test category or class being performed.

PROCEDURES (Continued)

6.1.2.3.1 In addition, the individual shall also be capable of evaluating the adequacy of specific programs used to train and certify inspection and test personnel whose qualifications are delineated herein.

6.2 Education and Experience Qualifications

6.2.1 These education and experience requirements shall be considered with recognition that other factors commensurate with the scope, complexity, or special nature of the inspection or test activity may provide reasonable assurance that a person can competently perform a particular task.

6.2.2 Other factors which may demonstrate capability in a given job are previous performance or satisfactory completion of capability testing.

6.2.3 These factors and the basis for their equivalency shall be documented.

6.2.3.1 Level I Education and Experience Requirements

- Two years of related experience in equivalent inspection or testing activities; or
- High school graduation and six months of related experience in equivalent inspection or testing activities; or
- Completion of college level work leading to an associate degree in a related discipline plus three months of related experience in equivalent inspection or testing activities.

6.2.3.2 Level II Education and Experience Requirements

- One year of satisfactory performance as a Level I in the corresponding inspection or test category or class; or
- High school graduation plus three years of related experience in equivalent inspection or testing activities; or
- Completion of college work leading to an associate degree in a related discipline plus one year of related experience in equivalent inspection or testing activities; or
- Graduation from a four-year college plus six months of related experience in equivalent inspection activities or testing activities.

6.2.3.4 Level III Education and Experience Requirements

- Six years satisfactory performance as a Level II in the corresponding inspection or test category or class; or

PROCEDURES (Continued)

- High school graduation plus ten years of related experience in equivalent inspection or testing activities; or high school graduation plus eight years of experience in equivalent inspection of testing activities with at least two years associated with nuclear facilities; or if not, at least sufficient training to be acquainted with relevant Quality Assurance aspects of a nuclear facility; or

- Completion of college work leading to an associate degree and seven years of related experience in equivalent inspection or testing activities with at least two years of this experience associated with nuclear facilities or, if not, at least sufficient training to be acquainted with the relevant quality assurance aspects of a nuclear facility; or

- Graduation from a four-year college plus five years related experience in equivalent inspection or testing activities with at least two years of this experience associated with nuclear facilities or, if not, at least sufficient training to be acquainted with the relevant quality assurance aspects of a nuclear facility.

6.2.4 If a single inspection or test requires implementation by a team or a group, then personnel who do not meet the requirements of this section may be used in data-taking assignments or in repository of equipment operation, provided they are supervised or overseen by a qualified individual.

6.3 Personnel Selection

6.3.1 The responsible organizations management shall select personnel to perform inspection and test activities in accordance with the following guidelines.

6.3.1.1 Personnel selected to perform inspection and test activities and who meet the requirements for education and experience and who have been indoctrinated and trained in accordance with this procedure shall be certified by the manager of the responsible organization.

6.3.1.2 The qualification of personnel shall be certified in writing and documented on the Inspection and Test Personnel Certification, Exhibit I, which will include the following information:

- Employer's name.

- Identification of person being certified.

- Activities certified to perform.

- Basis used for certification that includes such factors as:

  - Education, experience, and training (when necessary),

PROCEDURES (Continued)

- Test results (where applicable),
- Results of capability demonstration.

° Results of periodic evaluation.

° Results of physical examinations (when required).

° Signature of employer's designated representative who is responsible for such certification.

° Date of certification and certification expiration.

6.4 Indoctrination and Training

6.4.1 The responsible organization's management shall assure the following guidelines are complied with in the indoctrination and training of personnel selected for inspection and test activities.

6.4.1.1 Provisions shall be made for the indoctrination of personnel as to the technical objectives and requirements of the applicable codes and standards, Quality Assurance Program Plan elements, and procedures that are to be employed.

6.4.1.2 The need for a formal training program shall be determined, and such training activities shall be conducted as required to qualify personnel who perform inspection and tests.

6.4.1.3 On-the-job training shall also be included in the program, with emphasis on first-hand experience gained through actual performance of inspections and tests.

6.4.1.4 Training shall also be provided on those changes to the QAPP and implementing procedures that affect previous training.

6.5 Evaluation of Performance

6.5.1 The responsible organizations management shall reevaluate the job performance of inspection and test personnel at periodic intervals not to exceed three years.

6.5.1.1 Reevaluation shall be by evidence of continued satisfactory performance or redetermination of capability.

PROCEDURES (Continued)

6.5.1.2 If during this evaluation, or at any other time, it is determined by the responsible organization that the capabilities of an individual are not in accordance with qualification requirements specified for the job, then that person shall be removed from that activity until such time as the required capability has been demonstrated.

6.5.1.3 Any person who has not performed inspection or testing activities in his qualified area for a period of one year shall be reevaluated and a redetermination of their capability made in accordance with the requirements or this procedure.

6.6 Physical Requirements

6.6.1 The responsible organization shall identify any special physical characteristics needed in the performance of each activity, including the need for initial and subsequent physical examinations.

7.0 QA RECORDS

7.1 Documented Verification of Education and Experience, Indoctrination and Training Records, Qualification Test Results, Inspection and Test Personnel Certifications generated by the implementation of this procedure shall be considered QA Records and shall be controlled and maintained in accordance with QP 17.0.

8.0 EXHIBITS

8.1 Inspection and Test Personnel Certification, Exhibit I.

Exhibit I
Inspection and Test Personnel Certification

Reynolds Electrical & Engineering Co., Inc.

QUALITY ASSURANCE

INSPECTION AND TEST PERSONNEL CERTIFICATION

_____

is hereby certified as qualified to perform tests/inspections in the following areas:

_____

_____

_____

The following restrictions or limitations apply:

_____

_____

_____

SAMPLE

The basis for certification includes:

1. Education (specify): _____

2. Experience (specify): _____

3. Indoctrination: ☐ None required, as evaluated by undersigned. ☐ See attached.

4. Training: ☐ None required, as evaluated by undersigned. ☐ See attached.

5. Test Results: ☐ None required. ☐ See attached.

6. Results of capability demonstration: Satisfactory

7. Results of physical examinations: Satisfactory (when required)

DEPARTMENT MANAGER _____ DATE _____

CERTIFIED BY: QUALITY ASSURANCE MANAGER _____ DATE _____

Revaluation Date	Signature/Date	Revaluation Date	Signature/Date	Revaluation Date	Signature/Date

Reynolds Electrical & Engineering Co., Inc.	TITLE PERSONNEL QUALIFICATION AND CERTIFICATION	NO. QP 2.2
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QUALITY PROCEDURE	R F Pritchett	DATE 5/26/89
	Technical Project Officer	DIST. 23

INFORMATION COPY

Revision 5: This revision supercedes QP 2.2 Revision 4, 03-17-89.

1.0 PURPOSE AND SCOPE

1.1 The purpose of this procedure is to provide the guidelines for the qualification and certification of personnel performing or verifying activities affecting quality on the Yucca Mountain Project (YMP).

1.2 It delineates the responsibilities for the selection, qualification, certification, and evaluation of personnel performing activities affecting quality and provides for minimum position descriptions, minimum personnel qualifications and the appropriate Indoctrination and/or Training prior to the initiation of activities that affect quality and the documenting of these processes.

1.3 The requirements for Indoctrination and/or Training of personnel performing activities that specifically require certification to applicable codes and standards, e.g., lead auditor, inspector, testers, nondestructive examiners, etc., are established by the requirements of REECo/YMP Quality Assurance Program Plan (QAPP) 568-DOC-115. (Ref. QP 2.1, QP 2.4, and Appendix F of QAPP 568-DOC-115, as applicable.)

2.0 APPLICABILITY

2.1 This procedure applies to all personnel performing Quality Level I and II activities on the Yucca Mountain Project.

3.0 REFERENCES

3.1 REECo Quality Assurance Program Plan, (QAPP) 568-DOC-115 and appendix F for the Yucca Mountain Project.

3.2 QP 2.1, Certification of Inspection and Test Personnel.

3.3 QP 2.4, Indoctrination and Training

3.3 QP 17.0, Quality Assurance Records.

APPROVED: _____ DATE 5/25/89
PROJECT QUALITY ASSURANCE MANAGER

PROCEDURE (Continued)

4.0 DEFINITIONS

4.1 Appendix A, Terms and Definitions, of QAPP 568-DOC-115, contains general definitions.

5.0 RESPONSIBILITIES

5.1 Department Managers - The Department Managers are responsible for the qualification of personnel within their department and shall assure that, prior to assigning personnel performing activities that affect quality, they have been properly trained and that individual prerequisites have been verified and documented.

5.2 Human Resources - The Human Resources Department is responsible for verifying the individuals education and experience, and for maintaining records of the verification.

5.3 Training Administrator (TA) - The Training Administrator is responsible for providing for the indoctrination and training of personnel, in accordance with QP 2.4.

6.0 PROCEDURE

6.1 Qualification

6.1.1 Department Managers shall develop position descriptions for personnel performing activities affecting quality and establish minimum requirements for education and experience.

6.1.2 Department Managers shall identify the training required, based on the scope, complexity, and nature of the activity to be performed by their personnel.

6.1.2.1 Training shall include indoctrination relative to YMP QA requirements as specified in the QA Program Plan and QA Procedures.

6.1.3 The training requirements shall be forwarded to the Training Administrator who shall develop and provide the required indoctrination and training in accordance with QP 2.4.

6.1.4 Completion of indoctrination and training shall be a prerequisite to completion of the Qualification Record, Exhibit I and the initiation of activities that affect quality.

6.1.5 The Human Resources Department shall provide the appropriate documentation verifying the individuals education and experience history.

PROCEDURE (Continued)

6.1.6 Upon receipt of the individual's education and experience history verification documentation and completion of the training requirements, the department manager shall complete a Qualification Record, for each individual assigned to perform activities affecting quality.

6.1.7 The Activities Section of the Qualification Record shall specify the assigned activities for which the individual has been qualified to perform.

6.1.8 The basis for qualification shall include the minimum education and experience requirements, the verified actual education and experience received from the Human Resources Department, and training and a comparison to those established for the position.

6.1.9 The Qualification Record shall specify any restrictions or limitations, either physical or administrative imposed on the individual, i.e., color blindness would prelude the performance of certain types of inspection/examination.

6.1.10 The Department Manager shall sign and retain a copy of the Qualification Records of each individual assigned to perform activities affecting quality.

6.1.11 The Department Manager shall forward a signed Qualification Record of each individual to the TA as evidence that the individuals are acceptable for further training.

6.2 Proficiency Evaluation

6.2.1 After initial personnel qualification, the Department Manager shall perform annual proficiency evaluations for individuals he has assigned to perform activities affecting quality.

6.2.1.1 Proficiency evaluations shall be performed by managers or supervisors who have responsibility for the activities being performed or verified.

6.2.2 The proficiency evaluations shall be documented and include, as a minimum, the name of the individual being evaluated, activities covered by the evaluation, results of the evaluation, date of evaluation, and the name of the person performing the evaluation.

6.3 Other Qualification and Certification

6.3.1 Qualification and certification of personnel performing specialized activities, e.g., inspection and test, nondestructive examination, and auditing shall be accomplished in accordance with the applicable sections of the QAPP 568-DOC-115, detailed requirements specified in the applicable Appendices, (C, D, or F) of the QAPP and related QPs.

PROCEDURE (Continued)

7.0 QA RECORDS

7.1 Qualification Records, Certifications, Personnel Verification Documentation, and Proficiency Evaluation Records generated as a result of the implementation of this procedure shall be considered lifetime QA Records and shall be maintained and processed in accordance with QP 17.0.

8.0 EXHIBITS

8.1 YMP Qualification Record.

Exhibit A
Yucca Mountain Qualification Record

Reynolds Electrical & Engineering Co., Inc.

YUCCA MOUNTAIN PROJECT
QUALIFICATION RECORD

NAME (Last, First, Middle Initial) _____ Employee Number _____

Department _____ Job Classification _____

This document attests to the qualification of an individual to perform activities in the following area(s):

Activities:

Basis for Certification:

Restrictions/Limitations:

Comments:

Evaluated by: _____ Date: _____

RE-7320 (12/69)

Reynolds Electrical & Engineering Co., Inc.	TITLE MANAGEMENT ASSESSMENT	NO QP 2.3
		PAGE 1 of 4
YUCCA MOUNTAIN PROJECT	APPROVED	REV 1
QUALITY PROCEDURE	R7 Brittnest	DATE 5/26/89
	Technical Project Officer	DAST 23

INFORMATION COPY

Revision 1: This revision supersedes QP 2.3, Revision 0, 02-24-89.

1.0 PURPOSE AND SCOPE

1.1 This procedure describes the process and defines the responsibilities for conducting Management Assessment of the Reynolds Electrical & Engineering Co., Inc./Yucca Mountain Project (REECo/YMP) Quality Assurance (QA) program in order to determine its effectiveness and adequacy.

2.0 APPLICABILITY

2.1 This procedure applies to the performance of Management Assessment of the REECo/YMP Quality Assurance Program in accordance with the Quality Assurance Program Plan, 568-DOC-115, Section II.

3.0 REFERENCES

3.1 REECo Quality Assurance Program Plan (QAPP) 568-DOC-115, for the Yucca Mountain Project.

3.2 QP 17.0, Quality Assurance Records.

4.0 DEFINITIONS

4.1 Management Assessment - A formal review of procedures, records, personnel, training and activities conducted by REECo/YMP management to assure the adequacy and effectiveness of the QA program.

5.0 RESPONSIBILITIES

5.1 Technical Project Officer (TPO) - The Technical Project Officer, or designee, is responsible for assuring that Management Assessment is accomplished in accordance with this procedure.

APPROVED: Mono [signature] DATE 5/25/89
PROJECT QUALITY ASSURANCE MANAGER

PROCEDURE (Continued)

6.0 PROCEDURE

6.1 The TPO may delegate responsibility for the accomplishment of Management Assessment reviews, but the TPO shall retain responsibility for accomplishment.

6.1.1 The Management Assessment can be accomplished utilizing an outside organization if deemed necessary.

6.2 A Management Assessment shall be performed annually, as a minimum.

6.2.1 It shall be planned by the Management Assessment team and the results documented, with deficiencies identified and tracked by the Management Assessment team leader until effective corrective action is implemented.

6.3 A checklist for conducting Management Assessment shall be prepared and used as a guideline to verify the following:

6.3.1 That the QA program is being effectively implemented.

6.3.2 That project personnel are adequately trained to the requirements of the QA program.

6.4 The Management Assessment is not limited to the activities or items on the checklist.

6.4.1 At the option of the team leader, additions to the checklist can be made as the review progresses.

6.5 The pending Management Assessment Review shall be announced in advance to the REECo/YMP department managers participating in the review.

6.5.1 This will allow sufficient lead time for planning the availability of key project personnel for interviews by the team leader and preparing for the Management Assessment.

6.6 The Management Assessment team shall be selected by the TPO, or designee.

6.6.1 The TPO, or designee, will assign a team leader who will then call a meeting of the Management Assessment team to organize, review, set limits, assign specific areas of responsibility and train the team members for conducting the Management Assessment.

6.6.1.2 A schedule shall be established for the completion of Management Assessment activities.

6.7 Specific areas of the REECo/YMP QA Program to be included in the Management Assessment include, but are not limited to, the following"

PROCEDURES (Continued)

6.7.1 Quality Assurance Procedures - A Management Assessment Review will be conducted to assure that all quality implementing and administrative procedures necessary and required have been prepared.

6.7.2 Implementation - The effectiveness of the implementation of the QA program will be assessed by a review of QA reports including, but not limited to the following:

- nonconformance reports,
- corrective actions,
- audits and surveillance documents.

6.7.2.1 In depth interviews with key project personnel will be conducted.

6.7.2.1 Surveillance of activities to evaluate conformance to Project Quality Procedures will be included.

6.7.3 Qualification and Training - The YMP Division personnel qualifications shall be checked against the job descriptions to assure that all personnel are qualified for the positions held.

6.7.3.1 An assessment shall be made of the training required for each position and assigned area of responsibility to assure that each person has received the required training consistent with his/her position and assigned duties.

6.7.4 Staffing Plan - The staffing plan shall be evaluated to ascertain that sufficient personnel are available to accomplish the planned work.

6.7.5 Equipment and Resources - The list of equipment and resources will be checked against planned requirements to assure proper equipment and resources are available for the work to be accomplished.

6.7.6 Quality Assurance Records - An assessment will be made of the quality assurance records to verify they are being maintained in accordance with Section 17 of the QAPP and QP 17.0.

6.8 A report shall be prepared at the conclusion of the Management Assessment to fully document the results.

6.8.1 The report will include, as a minimum, the following:

- The date of the Management Assessment.
- The names of the review team member(s), their titles, organizational relationship, and qualification record.
- Names and titles of the project personnel who were interviewed.

PROCEDURES (Continued)

- A summary of the overall adequacy and effectiveness of the REECo/YMP QA program.
- A copy of the checklist used, listing the items and activities investigated.
- A description of identified areas of satisfactory and unsatisfactory performance.
- Identification of areas requiring corrective action, if any.
- A corrective action and verification follow-up schedule, if necessary.

6.9 The TPO will sign and date the Management Assessment report and transmit a copy of the report to the REECo General Manager and to the REECo/YMP Quality Assurance Manager.

6.9.1 A copy of the completed Management Assessment report will also be transmitted to the U.S. Department of Energy/YMP Project Manager and YMPO QA Manager.

6.10 The identified areas of concern will be documented and a copy transmitted to the TPO for resolution.

6.10.1 Upon receipt of the Management Assessment Report, the Project QA Manager will take the necessary action to assure correction of deficient condition(s) and will provide a response to the TPO and Management Assessment team leader.

6.11 The Management Assessment team leader will provide follow-up and verify that the necessary actions have been taken to correct any identified deficient condition(s).

6.11.1 Upon verification that acceptable corrective action has been taken, the team leader will close the Management Assessment report and advise, in writing, the TPO of the acceptable status.

7.0 QA RECORDS

7.1 The completed Management Assessment Report, Checklist, Memorandum and Corrective Action Requests shall be considered QA Records and shall be maintained in accordance with QP 17.0.

8.0 EXHIBITS

8.1 NONE

INFORMATION COPY

Revision 1: This procedure supersedes QP 2.4, Revision 0, 03-24-89.

1.0 PURPOSE AND SCOPE

1.1 The purpose of this procedure is to provide a systematic method of Indoctrination and Training for all REECo personnel on the Yucca Mountain Project (YMP).

1.2 This procedure delineates the responsibilities for development and implementation of the required training program and establishes the methods for conducting and documenting training of personnel in accordance with the applicable requirements established by REECo/YMP Quality Assurance Program Plan (QAPP), 568-DOC-115.

2.0 APPLICABILITY

2.1 This procedure applies to the Indoctrination and Training for REECo/YMP personnel performing Quality Level I and II activities on the YMP.

3.0 REFERENCES

3.1 REECo Quality Assurance Program Plan, (QAPP) 568-DOC-115, for the Yucca Mountain Project.

3.2 QP 2.2, Personnel Qualification.

3.3 QP 2.1, Certification of Inspection and Test Personnel.

3.4 QP 17.0, Quality Assurance Records.

3.5 10CFR50 Appendix B.

3.6 10CFR60.

3.7 40CFR191.

3.8 ANSI/ASME-NQA-1, 1986 Edition.

APPROVED: _____ DATE 5/25/89

PROCEDURE (Continued)

4.0 DEFINITIONS

4.1 Indoctrination - Instruction provided to personnel for familiarization with programmatic and work-oriented documents applicable to the assigned activity.

4.2 Training - In-depth instruction provided to personnel to develop and demonstrate initial proficiency in the application of selected requirements, methods, and procedures, and to adapt to change in technology, methods, or job responsibilities.

4.3 Appendix A, Terms and Definitions, of QAPP, 568-DOC-115, contains general definitions.

5.0 RESPONSIBILITIES

5.1 Technical Project Officer (TPO) - The Technical Project Officer shall assure that REECo/YMP Indoctrination and Training is developed, implemented, and documented in accordance with this procedure.

5.2 Department Managers - The Department Managers are responsible for defining Indoctrination and training requirements for personnel within their department performing activities in support of the YMP.

5.2.1 Department Managers shall provide the Training Administrator (TA) with these requirements on the Training Requirement Form (TRF), Exhibit I. (TRFs are provided by the TA to departments.)

5.2.2 Department Managers shall assure that, prior to assignment to any quality affecting activities, all personnel shall receive the required Indoctrination and Training based on the task to be performed, which will enable them to accomplish the task safely, competently and in accordance with the Quality Assurance Program.

5.3 Training Administrator (TA) - The Training Administrator is responsible for providing training materials required for YMP personnel training, specialized training, and/or refresher training. Additionally, the TA shall provide a training program, for short term or temporary employees, equal to the minimum requirements for full-time employees.

5.3.1 The Training Administrator shall provide a system for maintaining documentation of Indoctrination and Training, Qualification and Evaluations of personnel at YMP in sufficient detail to permit independent evaluation of the scope of the training program in accordance with this procedure.

5.4 Project Quality Assurance Manager (PQAM) - The Project Quality Assurance Manager is responsible for assuring that individual indoctrination and training is accomplished in accordance with QAPP, 568-DOC-115, and this procedure.

PROCEDURE (Continued)

6.0 PROCEDURE

6.1 Indoctrination

6.1.1 Prior to assigning personnel to perform activities affecting quality, they shall be indoctrinated as to the purpose, scope, methods of implementation, and applicability of the following documents, as a minimum, as they relate to the individual's assigned task:

- Quality Assurance Plans and Procedures.
- Federal Codes and Regulations pertaining to the program which include: 10CFR50 Appendix B, 10CFR60 and 40CFR191.
- ANSI/ASME-NQA-1, 1986 Edition.
- Any Industrial Standards as designated by the Department Managers.

6.1.2 Indoctrination may be provided by the PQAM, TA, or Division/Department Manager, as appropriate.

6.2 Training

6.2.1 Prior to assigning personnel to perform quality affecting activities, specific training, if needed shall be conducted to attain the required proficiency.

6.2.2 In-depth training shall include the principles, techniques, and requirements of the activity.

6.2.2.1 Such instruction may be internal or external classroom sessions, classroom sessions supplemented by hands-on workshops, other instructional methods or combination thereof.

6.2.3 Training requirements for short term or temporary employees who are assigned to a program or task for less than 90 days shall be equal to the minimum requirements of full-time employees.

6.2.4 Training of personnel to address program document changes shall be accomplished prior to implementation of the affected changes.

6.2.5 After initial personnel qualification evaluation, job proficiency of personnel who perform activities affecting quality shall be evaluated and documented annually.

6.2.5.1 Proficiency evaluations shall be performed by the Department Manager or Supervisor who is responsible for the activities being performed or verified.

6.2.6 Waivers to required training may be submitted by Department Managers to exempt an employee from specific training assignments.

PROCEDURES (Continued)

6.2.6.1 A Training Waiver (TW), Exhibit V, shall be submitted to the TA as evidence that an employee has satisfactory knowledge and qualifications and does not require training.

6.2.6.2 The TW will serve as justification for this action.

6.2.6.3 The TA will then include the TW as a part of the employees training record file.

6.3 Training Development

6.3.1 Department Managers shall provide the new employee with applicable documents and additional information, as necessary, for indoctrination to satisfy the requirements of paragraph 6.1.

6.3.2 Department Managers shall review the employee's background and qualifications, as well as the employee's task assignment to determine required training per the requirements of paragraph 6.2.

6.3.3 Department Managers shall document training requirements on the Training Requirements Form (TRF), Exhibit I and forward it to the TA.

6.3.4 Department Managers shall provide input to the TA, as required for preparation of lesson plans and any other materials required for additional training of subjects.

6.3.5 Department Managers shall designate personnel from their department who have appropriate qualifications within their area of expertise, as candidate(s) for being trained as a training instructor(s).

6.3.5.1 Initiate an Instructor Qualification Form (IQF), Exhibit II and forward it to the TA for training of the individual(s).

6.3.6 The TA shall enter information from TRF's into the tracking system, e.g., computerized training matrix.

6.3.7 The TA shall develop lesson plans which satisfy the requirements for training as requested by the Department Managers.

6.3.8 The TA shall obtain required assistance from cognizant Department Managers as necessary, to develop lesson plans, materials and supporting training aids for all training, special training and retraining classes.

6.3.9 The TA shall conduct/assign training of personnel designated by the Department Managers as candidates for training instructors.

6.3.9.1 Document completion of the instructor training on the IQF.

6.3.9.2 Sign the qualification statement on the IQF upon satisfactory completion of the instructor training.

PROCEDURES (Continued)

6.3.10 The TA shall provide training class schedules and notify the departments with a list of personnel who need to attend.

6.3.11 The TA shall provide personnel scheduled for training with required pre-training reading materials/lists. (Use of the TRF, Exhibit I can be utilized when needed.)

6.3.12 The TA shall conduct and/or assign the subjects of training to qualified training instructors as required.

6.3.13 The TA shall assure that all classroom training of personnel has been properly documented, verified and is included within the individual's training file as a record.

6.3.2.13.1 This shall be documented on a Training Attendance Record (TAR), Exhibit III.

6.3.14 The TA shall verify that the manager or supervisor has signed completed TRF's indicating that personnel have satisfactorily completed assignment.

NOTE: The TAR and TRF is synonymous as regard to Training Attendance Records.

6.3.15 The TA shall update training tracking system to show completion of required course work and reading.

6.3.16 Following scheduled training, the TA shall notify Department Managers of personnel who have successfully completed the required training.

6.3.17 The TA shall review all training records to assure individual training records are complete and in compliance with this procedure.

6.3.18 The TA shall maintain individuals training records file system.

6.3.19 Based on analysis of completed Training Course Evaluation (TCE) forms, Exhibit IV, revised documents or other factors, the TA shall evaluate the need to revise lesson plans.

6.3.20 Training Instructors shall participate in preparation/update of lesson plans and materials for training assigned to them, as required.

6.3.21 Training Instructors shall conduct training classes as assigned.

6.3.22 For each training class, the Training Instructor shall prepare a Training Attendance Roster (TAR), Exhibit III with the appropriate information required to properly document training of personnel.

6.3.22.1 The TAR shall contain the following information:

- Training course given,

PROCEDURES (Continued)

- Instructor,
- Date(s),
- Length of course,
- Location,
- List of personnel scheduled to attend,
- Signature of attendees,
- Signature of instructor.

6.3.22.2 After completion of each class, the Training Instructor shall assure that the TAR has been complied with:

- Signature, organization/department, and employee number of each attendee,
- Signature of instructor and date.

6.3.23 Training Instructors shall administer and evaluate results of examinations when applicable.

6.3.24 Training Instructors shall provide Training Course Evaluation (TCE) forms, Exhibit IV, to trainees to complete.

6.3.25 Training Instructors shall provide completed TAR, TCE's, and Exams as applicable, to the TA.

6.4 Personnel Qualification and Certification

6.4.1 Qualification and Certification of personnel shall be accomplished in accordance with QP 2.2 or QP 2.1 as applicable.

6.5 Refresher Training

6.5.1 Department Managers shall determine needs for refresher training based on proficiency evaluations performed in accordance with QP 2.2, revisions to program documents, corrective action documents or other factors.

6.5.2 Department Managers shall notify the TA via a supplemental TRF. The TRF shall be marked to clearly distinguish it from the initial TRF, i.e., initial or supplemental.

6.5.3 The TA shall initiate refresher training in the same manner described in paragraph 6.3.2.

PROCEDURES (Continued)

6.6 Training Program Evaluation

6.6.1 The TPO shall periodically, annually as a minimum, initiate an evaluation of the overall training program for the REECo Yucca Mountain Project Division.

6.6.2 The TPO shall advise cognizant managers and the TA of any needed changes to the program.

6.6.3 The TPO shall document the evaluation and include the following information:

- Names of evaluators,
- Dates of evaluation,
- Scope of evaluation,
- Methodology,
- Results,
- Recommendations for change, (if any)
- Signature of TPO.

6.6.4 The TA shall assist evaluation efforts as needed.

6.6.5 The TA shall implement needed changes as requested by Managers and maintain records of evaluation.

7.0 QA RECORDS

7.1 Records of Personnel Qualification Evaluations, Indoctrination, Training, and Proficiency Evaluations shall be retained as lifetime QA Records and shall be maintained and processed in accordance with QP 17.0.

8.0 EXHIBITS

8.1 Training Requirement Form, Exhibit I.

8.2 Instructor Qualification Form, Exhibit II.

8.3 Training Attendance Record, Exhibit III.

8.4 Training Course Evaluation, Exhibit IV.

8.5 Training Waiver, Exhibit V.

Exhibit I
Training Requirement Form
Page 1 of 2

Reynolds Electrical & Engineering Co., Inc.

YUCCA MOUNTAIN PROJECT

TRAINING REQUIREMENTS FORM

INITIAL _____
SUPPLEMENTAL _____

Employee Name _____ Emp. No. _____ Date _____

Job Position _____ Organization _____

Manager _____ _____
(Print Name) (Signature)

Required Classroom Training Courses:

SAMPLE

REQUIRED READING:

REQ'D (X)	PROCEDURE NUMBER	REV	TITLE	REQ'D (X)	NUMBER	REV	TITLE
___	588-DOC-115	___	Quality Assurance Program Plan	___	_____	___	_____
___	QP 2.0	___	Organization	___	_____	___	_____
___	QP 2.1	___	Resolution of Disputes	___	_____	___	_____
___	QP 2.2	___	Stop Work Order	___	_____	___	_____
___	QP 2.3	___	QA Program	___	_____	___	_____
___	QP 2.4	___	Cert. of Insp. & Test Personnel	___	_____	___	_____
___	QP 2.5	___	Personnel Qualification	___	_____	___	_____
___	QP 2.6	___	Management Assessment	___	_____	___	_____
___	QP 2.7	___	Indoctrination & Training	___	_____	___	_____
___	QP 3.0	___	Scientific Investigation	___	_____	___	_____
___	[redacted]	___	[redacted]	___	_____	___	_____
___	QP 3.2	___	Change Control	___	_____	___	_____
___	QP 3.3	___	Technical Assessment Review	___	_____	___	_____
___	QP 4.0	___	Procurement Document Control	___	_____	___	_____
___	QP 5.0	___	Instr. Proc. & Dwgs.	___	_____	___	_____
___	QP 5.1	___	Procedure Preparation				
___	QP 5.2	___	Proc. Issue & Cont. of Work Proc.				
___	QP 5.3	___	Document Control				
___	QP 7.2	___	Control of Purch. Mat., Items & Serv.				
___	QP 8.0	___	Identif. & Cont. of Mat., Parts & Comp.				
___	QP 9.0	___	Control of Processes				
___	QP 9.1	___	Welding Procedure Qualification				
___	QP 9.2	___	Welder Qualification				
___	QP 10.0	___	Inspection				
___	QP 10.1	___	Surveillance				
___	QP 11.0	___	Test Control				
___	QP 12.0	___	Control of Meas. & Test Equip.				
___	QP 13.0	___	Handling, Shipping & Storage				
___	QP 14.0	___	Insp., Test & Operating Status				
___	QP 15.0	___	Nonconformance				
___	QP 16.0	___	Corrective Action				
___	QP 16.2	___	Trend Analysis				
___	QP 17.0	___	Quality Assurance Records				
___	QP 18.0	___	Audits				

I have completed the required reading

_____ _____
Signature Date

The employee has completed required reading. Completion of required courses will be separately documented on Training Attendance Records:

Manager: _____ Date _____

Training Administrator: _____ Date _____

RE-2201 (10/71)

Exhibit I
Training Requirement Form
Page 2 of 2
Instructions

Employee's Manager:

1. Check the "Initial" block if this is the first TRF completed for the employee.

2. Check the "Supplemental" block if this TRF is for:

   a. Additional training

   b. Refresher training (i.e., retraining or reading on subjects for which training has been previously accomplished).

3. Enter employee's Name, Employee Number, and date of initiation of this TRF.

4. Enter Employee's job position and which REECo YMP or Matrix Organization the employee is a member of.

5. Name of Manager. (Print, then Sign).
   Note: Signature indicates approval of listed training assignments.

6. List required training courses. (May be existing courses or courses needing to be developed.)

7. Indicate required reading by placing an "x" in the "REQ'D" column.

8. Enter current revision of required reading in the "REV." column.

9. Add other documents to list, if needed, in the blank spaces provided.

Employee:

10. Sign and date when all required reading is complete.

Manager:

11. Sign and date acknowledging employee's completion of reading assignment.

Training Administrator:

12. Sign and date signifying that the TRF is complete. (i.e., no other entries required).

Exhibit II
Instructor Qualification Form
Page 1 of 2

REECo
YUCCA MOUNTAIN PROJECT

INSTRUCTOR QUALIFICATION FORM

Instructor Name: _____ Emp. No.: _____

Subject Area: _____

Section I: Background Experience

This individual possesses sufficient knowledge and expertise to perform instruction in the subject area as demonstrated by:

_____

SAMPLE

Submitted by: _____ _____
(Manager Name) (Title)

_____ _____
(Signature) (Date)

Section II: Completion of Instructor Training

This individual completed Instructor Training on _____
(Date)

Note: If instructor training is waived, enter N/A and attach a copy of the approved Training Waiver.

Training Administrator: _____ _____
(Signature) (Date)

Section III: Statement of Qualification

This individual, by virtue of background experience and training as indicated above is qualified to conduct training in the subject area.

Training Administrator: _____ _____
(Signature) (Date)

Exhibit II
Instructor Qualification Form
Page 2 of 2
Instructions

Manager or Training Administrator:

1. Instructor Name/Emp. No. - Enter the name of the person to be qualified as an instructor and their Employee Number.

2. Subject Area - Enter subject area of training for which the person is to be qualified to instruct.

Manager:

3. Section I: Background Experience - Provide specific details which demonstrate the knowledge and expertise of the person in the subject area.

4. Submitted by - Enter manager name and title, then sign and date.

Training Administrator:

5. Section II: Completion of Instructor Training - Enter the date that instructor training was completed. If instructor training was waived, enter N/A and attach copy of the approved training waiver.

6. Sign and date Section II.

7. Section III: Statement of Qualification - Sign and date if background experience and training adequately support the Section III qualification statement.

Exhibit III
Training Attendance Record
Page 1 of 2

Reynolds Electrical & Engineering Co., Inc.

YUCCA MOUNTAIN PROJECT
TRAINING ATTENDANCE RECORD

Lesson Plan No _____ Rev _____

Title _____

Conducted By _____ Date _____

Length of Training _____ Location _____

Instructor(s) _____

Description of Training (or attach a copy, an outline or an abstract) _____

_____

_____

Examination Given: Yes _____ No _____

Record Attendance (use black ink)

	Name (print)	Signature	Organization/Department	Employee Number
1				
2.				
3.				
4				
5.				
6.				
7				
8.				
9.				
10.				
11				
12.				
13.				
14				
15.				
16.				
17.				

Instructor Signature _____ Date _____

Exhibit III
Training Attendance Record
Page 2 of 2
Instructions

Instructor:

1. Lesson Plan No./Rev. - Enter lesson plan number and current revision.

2. Title - Enter title of lesson plan.

3. Conducted by/date - Enter organization conducting training and date conducted.

4. Length of Training/Location - Enter approximate length of time required to conduct the course and the location where conducted.

5. Instructor(s) - Enter name(s) of instructor(s).

6. Description of Training - Briefly describe what is covered in the course or refer to an attached lesson plan, outline or abstract.

7. Examination Given, Yes/No - Indicate by checking yes or no whether an examination was given.

Training Attendee(s):

8. Attendance - Print name, enter signature, name of REECo/YMP or Matrix Organization, and employee number.

Instructor:

9. Sign and date bottom of form.

10. Complete "page ___ of ___" entry.

Exhibit IV
Training Course Evaluation
Page 1 of 2

Reynolds Electrical & Engineering Co., Inc.

YUCCA MOUNTAIN PROJECT
TRAINING COURSE EVALUATION

Subject: (to be completed by instructor)

Lesson Plan _____ Rev _____

Title _____

Course Location _____ Date _____

Instructor(s) _____

Evaluation: (to be completed by trainee)

A. Training course content

Excellent _____ Good _____ Fair _____ Poor _____

Recommendation(s) for improvement (if any)

B. Training course delivery

Excellent _____ Good _____ Fair _____ Poor _____

Recommendation(s) for improvement (if any)

C. Other comments - use this space to document any other comments you may have relative to this course or the REECo/YMP training program in general.

TRAINEE: _____ _____
(Signature optional) (Date)

Exhibit IV
Training Course Evaluation
Page 2 of 2
Instructions

Instructor:

Complete the "SUBJECT" portion of the TCE Form. Enter:

a. Lesson Plan No. and Revision

b. Title of Lesson Plan

c. Course location and date

d. Instructor(s) name(s)

Trainee

Complete the "EVALUATION" portion of the TCE Form.

a. In Section "A", rate the content of the course by checking one of the four categories: excellent, good, fair or poor. Provide recommendations for improvement (if any).

b. In Section "B", rate instructor's delivery of course material by checking one of the four categories: excellent, good, fair or poor. Provide recommendations for improvement (if any).

c. Use Section "C" to enter any other comment you have regarding the course presented or the REECo/YMP training program in general.

d. Trainee signature and date is optional.

Return form to the instructor or to the Training Administrator.

Exhibit V
Training Waiver
Page 1 of 2

Raynolds Electrical & Engineering Co., Inc.

YUCCA MOUNTAIN PROJECT

TRAINING WAIVER

Employee _____
(Employee Name) (Emp. No.) (Organization)

Training subject to waiver:

_____

_____

Justification:

_____ 1. Person already has the requisite knowledge or skill as demonstrated by:

_____ 2. Person will acquire the requisite knowledge or skill be other means, e.g.:

_____ 3. Other (explain)

Submitted by: _____ _____
(Print Name) (Title)

_____ _____
(Signature) (Date)

Concurrence
Training Administrator: _____ _____
(Signature) (Date)

Exhibit V
Training Waiver
Page 2 of 2
Instructions

Manager:

1. Employee - Enter Employee name, Employee number and Organization of Person for whom training is being waived.

2. Training Subject to Waiver - Identify specifically what training is to be waived.

3. Justification - Check the applicable justification statement(s). In the space provided, enter specific details which support the statement.

4. Submitted By - Enter name (printed) and title, then sign and date.

Training Administrator:

5. Sign and date signifying concurrence with the waiver.

Reynolds Electrical & Engineering Co., Inc.	TITLE SCIENTIFIC INVESTIGATION CONTROL AND DESIGN CONTROL	NO. QP 3.0
		PAGE 1 of 1
YUCCA MOUNTAIN PROJECT	APPROVED	REV. 3
QUALITY PROCEDURE	R F Pritchett	DATE 5/26/89
	Technical Project Officer	DIST. 25

INFORMATION COPY

Revision 3: This revision supersedes QP 3.0, Revision 2, 01-03-89

Scientific Investigation Control

REECo is not a participating organization and has no assigned activity in this area.

Design Control

As the primary support contractor of the NTS, as opposed to A/E contractor, REECo has no specifically designated responsibility for design in the Yucca Mountain Project (YMP). However, REECo does participate in the review of designs from participating organizations or A/E contractors to the extent indicated by the YMP office, participating organizations or A/E contractor design control programs. Specific REECo methods for accomplishing this task are described in QP 3.2.

APPROVED: _____ DATE 5/25/89
PROJECT QUALITY ASSURANCE MANAGER

Reynolds Electrical & Engineering Co., Inc.	TITLE CHANGE CONTROL	NO QP 3.2
		PAGE 1 of 26
YUCCA MOUNTAIN PROJECT	APPROVED	REV 1
QUALITY PROCEDURE	R.F. Pritchett	DATE 5/26/89
	Technical Project Officer	DIST 23

INFORMATION COPY

Revision 1: This revision supersedes QP 3.2, revision 0, 04-03-89

1.0 PURPOSE AND SCOPE

1.1 To describe the methods to be used and the authority and responsibilities of the REECo/YMP Division in originating, processing and implementing changes affecting baseline, non-baseline and field changes to the project.

1.2 To provide a uniform method of processing changes which originate in the field or which affect field activities.

1.3 To assure compliance with project requirements and procedures affecting change control, reference Project AP-3.3Q, Section 1.0.

1.4 Changes to released documents that affect REECo field activities may be originated by persons or organizations outside of REECo/YMP.

NOTE: Such changes are processed through the Change Control Board (CCB) or Field Change Control Board (FCCB) and are not a part of this procedure.

2.0 APPLICABILITY

2.1 This procedure applies to all REECo/YMP Division departments and all REECo matrixed divisions and departments involved in the origination and implementation of changes to officially released and controlled documents, with major emphasis on field changes, reference Project AP-3.3Q, Section 2.0.

2.2 Activities and/or components which are classified as Quality Levels I or II and which are affected by Change Requests are governed by this procedure.

3.0 REFERENCES

3.1 REECo Quality Assurance Program Plan, (QAPP) 568-DOC-115, for the Yucca Mountain Project.

3.2 QP 17.0, Quality Assurance Records.

APPROVED: _____ DATE 5/25/89
PROJECT QUALITY ASSURANCE MANAGER

REFERENCES (Continued)

3.3 Project AP-3.3Q, Change Control Process.

3.4 Project AP-3.6Q, Configuration Management.

3.5 Project AP-5.4Q, Assignment of Quality Assurance Levels.

3.6 Project Configuration Management Plan NNWSI/88-4.

4.0 DEFINITIONS

4.1 Baseline - A baseline is a quantitative expression of projected cost, schedule, or technical progress to service as a base or standard for measurement during the performance of the effort, the established plan against which the status of resources and the progress of the Project can be measured.

4.2 Change Classification - Change Classification is the process of designating or the designation of, a proposed change as Class 1, 2, 3, or 4 in accordance with Project AP-3.3Q, Appendix A and Exhibit 3.3-10, Change Control Approval Classification.

4.3 Change Request (CR) - A Change Request is a proposed change to items or documents listed in the Project Change Control Board Register. A CR is communicated by a Change Request Form, Exhibit I, that transmits a CR package.

4.4 Change Directive (CD) - The Change Directive is the document, Form Y-AD-057 and Exhibit VI, prepared by the authority responsible for disposition of a CR, that records the disposition of a proposed change.

4.5 Change Request Package - The CR package is a CR form identifying a proposed change, plus the approved documents and/or document changes that fully define the proposed change, information or documents that support the change, and associated change administration forms appropriate to the current state of maturity of the package. Exhibit IV displays a typical CR package structure and contents.

4.6 Change Request Disposition - CR disposition is (1) the act of approving, approving with conditions, or disapproving a proposed change, and (2) the determination that a CR is approved, approved with conditions, or disapproved.

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

4.8 Configuration Management - Configuration management is the discipline that provides for identification, control, status accounting, and auditing of Project Baseline configuration items and documentation.

4.9 Document Change Notice (DCN) - The Doc ıent Change Notice is a form, Form Y-AD-058 and Exhibit VII that is used to notify recipients of a change to a document in the Project CCB Register, specifying the changes to be made to the document.

DEFINITIONS (Continued)

4.10 Field Change Request - A Field Change Request is a CR originated in the field (at the Yucca Mountain Project site), or that affects field activities, and that is either:

1. Class 3, or

2. Class 2 or 4 and must receive expeditious treatment because its priority is determined to be Emergency or Urgent

4.11 Program Baseline - The Program Baseline is the baseline tier or layer that consists of documents that are controlled above the Project Office level and configuration items that interface outside of the Project.

4.12 Project Baseline - The Project Baseline is the baseline tier or layer that consists of documents that are evaluated at the Project Office level and configuration items that have organizational interfaces across Project participant areas of responsibility.

4.12.1 The Project Baseline consists of cost, schedule, and technical documents and configuration items designated by the Project CCB to be under Project CCB control and subsequently listed in the Project CCB Register.

4.12.2 Cost, schedule and technical baseline items are controlled using the change control process as described in this procedure.

4.12.3 Documents and configuration items are included in the Project baseline based on criteria defined in Section 3.0 of the Project Configuration Management Plan.

4.13 Appendix A, Terms and Definitions, of 568-DOC-115, contains general definitions.

5.0 RESPONSIBILITIES

5.1 Technical Project Officer (TPO) - The Technical Project Officer, or designee, is responsible for the submittal of REECo/YMP originated Class 1, 2, and 3 Change Requests to the appropriate Change Control Board (CCB or FCCB), in accordance with this procedure, reference Project AP-3.3Q, para. 4.10.

5.1.2 The TPO is also responsible for providing information, clarification, and detailed impact analysis and supporting documentation on CR's as required.

5.1.3 The TPO is responsible for the disposition of REECo/YMP originated Class 4, field CRs.

5.2 Construction Department Manager (CDM) - The Construction Department Manager, or designee, is responsible for the initiation classification and processing of REECo/YMP Change Requests and for assuring implementation of the REECo/YMP Change Control System.

RESPONSIBILITIES (Continued)

5.3 Project Engineer (P.E.) - The Project Engineer, Construction Engineering Section, or designee, is responsible for the preparation of all REECo/YMP initiated Class 1, 2, 3, and 4 changes.

5.3.1 The appropriate REECo/YMP discipline engineer, e.g., Civil, Mechanical, Electrical, Mining, Drilling, etc., is responsible for preparing and controlling REECo/YMP originated changes.

5.3.2 The P.E. is responsible for ensuring that CR documents and changes thereto are forwarded to the appropriate distribution center for distribution.

5.4 Project Quality Assurance Manager (PQAM) - Project Quality Assurance Manager is responsible for the review and approval, prior to transmittal or implementation, of any CRs affecting quality.

6.0 PROCEDURE

6.1 General

6.1.1 Changes to released documents may be requested by any REECo employee who has identified the need for a change.

6.1.2 Change requests shall be submitted by the initiator to the P.E. using the Change Request form, Exhibits I and II.

6.1.3 Each submittal shall identify the existing requirement, the desired change, the reason for the change, and the perceived benefit which would justify approval of the change.

6.1.4 Exhibit III is a flow diagram of the change control process. The blocked areas establish the boundaries of REECo responsibilities.

6.1.5 After a CR has been approved, the responsibility for reviewing and approving the changes to the previously verified designs will remain with the A/E. This responsibility is outside the REECo scope of work.

6.2 Processing REECo/YMP Originated CRs

6.2.1 REECo/YMP originated CRs shall be prepared, classified 1, 2, 3, or 4 in accordance with the requirements of Exhibit IX and approved by the P.E., or designee, following the instructions given in Project AP-3.3Q, Section 5.4 and Exhibit 3.3-4 except as follows:

6.2.1.1 Block 25 of the CR Form, Exhibit I, shall be signed by the TPO or designee.

6.2.1.2 The first continuation sheet, Exhibit II, shall, as the first item, carry the signatures of the CDM, P.E. and the PQAM where appropriate, or their individual designees.

PROCEDURES (Continued)

6.2.1.3 These signatures indicate to the TPO their individual approval of the requested change. Subsequent continuation pages do not require such signatures.

6.2.1.4 Prior to submittal of the CR to CDM and PQAM, the P.E. shall prepare a Change Request package meeting the requirements of AP-3.3Q, Section 5.4. See Exhibit X for factors to consider when preparing a CR.

6.2.2 The Project Engineer shall obtain the approval of the Project Quality Assurance Manager on all Change Requests.

6.2.2.1 The P.E., or designee, is responsible for maintaining a change request log, See Exhibit V, of all REECo/YMP initiated Class 1, 2, 3, and 4 CRS showing their status, for transmitting the CRs to the CDM, PQAM and TPO for approval, and for assuring the receipt and distribution of approved CRs within REECo for implementation. See Exhibit IX for classification of changes.

6.2.2.1 The REECo/YMP Change Request Log, Exhibit V, shall include, as a minimum, the following information:

- CR Originator,
- Title of the Change,
- Date Originated,
- CR Number,
- Date dispositioned by:
  - Project Engineer
  - Construction Department Manager
  - Project Quality Assurance Manager
  - Technical Project Officer
- Date transmitted to T&MSS, CMO for further processing (Class 1, 2, and 3) or for configuration records (Class 4),
- Date approved document released for implementation

6.2.3 The PQAM or designee, shall review all CRs to determine the impact of any change on Quality. Block 11 of the CR, Exhibit I, shall be verified to ensure the proper Quality Assurance Level Assignment (QALA) has been made. Reference Project AP-5.4Q.

6.2.4 The P.E. shall route to the TPO for approval the REECo/YMP CRs showing concurrence by the CDM and PQAM.

PROCEDURES (Continued)

6.2.5 Class 1, 2, and 3 CRs approved by the TPO are transmitted by the TPO to the T&MSS Configuration Management Organization (CMO) for review for completeness.

6.2.6 CRs judged to be incomplete may be held by the CMO or returned by the CMO for further information. See Exhibit VIII for change control approval classifications.

6.2.7 Further processing of REECo Class 1, 2, or 3 CRs is performed by the T&MSS CMO in accordance with the requirements of Project AP-3.3Q.

6.3 Class 4 CRs Originated by REECo/YMP

6.3.1 The initiation, preparation and approval of REECo/YMP originated Class 4 CRs shall be the same as for Class 1, 2, and 3 CRs up to and including the approval of the CR by the TPO.

6.3.2 The REECo/YMP cognizant discipline engineer shall be responsible for obtaining the approval of the Project Engineer or designee prior to submittal for the approval of the CDM and the PQAM or their designee.

6.3.3 Subsequent to the approval of the CR by the CDM, P.E. and/or the PQAM, the cognizant discipline engineer will prepare a Yucca Mountain Change Directive, Exhibit VI, for approval in block 7 of the TPO or his designee.

6.3.4 Upon receiving the dispositioned Change Directive, the cognizant discipline engineer shall prepare the CR package for transmittal to the T&MSS CMO.

6.3.4.1 The package, see Exhibit IV, shall consist of:

- The Change Request Form,
- Change Request Continuation pages,
- Proposed distribution and Change Criteria for entry into the Project Baseline,
- Documentation supporting the change, e.g., technical, cost and schedule justification (Ref. Project AP-3.3Q, Appendix B),
- The Change Directive Form with all required blocks complete except blocks 9 and 10,
- The required DCN forms, Exhibit VII.

6.4 Processing of YMPO and A/E CRs

6.4.1 CRs originated by the YMPO and the A/Es will be processed in accordance with AP-3.3Q.

PROCEDURES (Continued)

6.4.2 REECo will participate in the review of such CRs as a part of that process (Ref. Project AP-3.3Q Section 5.5, 5.7.5, and 5.8).

7.0 QA RECORDS

7.1 The contents of the Change Request package generated by the implementation of this procedure shall be considered QA Records and shall be handled and maintained in accordance with QP 17.0.

8.0 EXHIBITS

8.1 Change Request, Exhibit I.

8.2 Modified Change Request Continuation Page, Exhibit II.

8.3 Change Control Process Logic Diagram, Exhibit III.

8.4 Typical Change Request Package Structure, Exhibit IV.

8.5 Change Request Log, Exhibit V.

8.6 Change Directive, Exhibit VI

8.7 Document Change Notice, Exhibit VII.

8.8 Change Control Approval Classification, Exhibit VIII.

8.9 Classification of Changes, Exhibit IX.

8.10 Factors for Consideration in Preparing CRs, Exhibit X.

Exhibit I
Change Request
Page 1 of 3

YUCCA MOUNTAIN PROJECT
CHANGE REQUEST (CR)

Y-AD-055
01/89

CR IDENTIFICATION

1 Title of Change:

2 CR No.:

3 Originator's Control No.:

4 Originating Org.: 5 Prepared By: 6 Date:

7 Affected Baseline:
- ☐ Program
- ☐ Project Technical
- ☐ Other ☐ None

8 Change Classification:
- ☐ Class 1 ☐ Class 3
- ☐ Class 2 ☐ Class 4
- ☐ Non-baseline CCB Controlled Document

9 Priority:
- ☐ Emergency
- ☐ Urgent
- ☐ Routine

10 Affected WBS No(s): _____

11 QA Level _____

12 Related CR _____

13 Configuration Item (CI) No. _____ 14 Other Items Affected _____

15 Next Higher Assembly _____ 16 Effectivity of Change _____

17 Retrofit, if Required _____

CR DESCRIPTION

18 Description: (See CR Continuation Page ___)

19 Reason for Change: (See CR Continuation Page ___)

20 Cost Impact: (See CR Continuation Page ___)

21 Schedule Impact: (See CR Continuation Page ___)

22 Impact if Change is Not Made: (See CR Continuation Page ___)

23 Does this change require revision of other documents? (If yes, list the documents.)
☐ Yes ☐ No (See CR Continuation Page ___)

24 Attachments: (See CR Continuation Page ___)

SUBMIT

25 Submitted By:
Name: _____ Title: _____
Signature: _____ Date: _____

Page ___ of ___

Exhibit I
Change Request
Instructions
Page 2 of 3

INSTRUCTIONS FOR PREPARATION OF CHANGE REQUEST (CR) FORM Y-AD-055

Block 1. Brief descriptive title indicating the purpose of the CR. For Field Change CRs begin with "FIELD CHANGE - ".

Block 2. CR number obtained from the T&MSS CMO after signature by the TPO in Block 25.

Block 3. Control number (if any) for processing within the originating organization.

Block 4. Name of the organization requesting the change.

Block 5. Name of the individual preparing the CR form.

Block 6. Date of CR origination.

Block 7. Mark the box identifying the Baseline primarily affected by this change.

Block 8. Mark the box identifying the change classification for this change. Mark the "Non-baseline CCB Controlled Document" box if applicable.

Block 9. Mark the box identifying the priority of this change in accordance with the following criteria:

Emergency: (1) Correct a hazardous condition that may result in fatal or serious injury to personnel or in extreme damage or destruction of equipment, or

(2) A change in operational characteristics that, if not accomplished without delay, may seriously compromise the licenseability of the site.

Urgent: (1) Correct a potentially hazardous condition, the uncorrected existence of which could result in injury to personnel or damage to equipment, or

(2) Correct a condition that may seriously compromise mission effectiveness, or

(3) An interface change or a change to meet contractual requirements that may cause schedule slippages or increase cost, or

(4) A change that produces net life cycle savings to the government of $100,000 or more.

Routine: (1) All changes that do not fit the criteria for emergency or urgent.

Block 10. WBS element numbers that are known to be affected by the change.

Block 11. Quality Assurance Level of the activity associated with the document to be changed.

Exhibit I
Change Request
Instructions
Page 3 of 3

Block 12. CR numbers of any known related CRs.

Block 13. CI number of the CI to be changed, or associated with document changes. May be obtained from the T&MSS CMO or CIS.

Block 14. CI numbers of the CIs affected by the change or associated with the change.

Block 15 Parent document, assembly, drawing, or specification of the item to be changed. If not applicable, enter N/A.

Block 16. Effectivity (i.e., identification of like units affected) of the change (i.e., all, serials 1 and 2, units 5 through 8, etc.). If not applicable, enter N/A.

Block 17. Record which existing items should be retrofitted (e.g., installed as a modification kit). If not applicable, enter N/A.

Block 18. Describe the proposed change in sufficient detail to permit ready identification and evaluation. Describe which part of the item or system is being changed and type of change being made. Provide supplemental drawings and sketches as necessary to clearly portray the proposed change. Identify any applicable deviations or waivers. If the proposed change is an interim solution, so state.

Block 19. Describe (1) the problem the CR corrects, or the new capability the CR provides, (2) the nature of the defect, failure, incident, malfunction, etc., (3) substantiate the need for the change in detail. Identify and summarize any correspondence establishing requirements for the change and any testing accomplished prior to the submission.

Block 20. Record the estimated cost or savings associated with implementing the proposed change. Describe the assumptions and basis for the estimate.

Block 21. Record the estimated schedule improvement or slippage. Describe the assumptions and basis for the estimate.

Block 22. Record the estimated cost and schedule impact if the change is not incorporated in the Project Baseline. Describe the assumptions and basis for the estimate.

Block 23. Mark the appropriate box if other known document changes are needed. If "yes" list the documents by title and identifying number.

Block 24. List Attachments to the CR by titles, identifying numbers, and page counts.

Block 25. Print the name and title of the submitting authority (TPO or Project Office Division Director). The submitting authority signs and dates.

Exhibit II
Modified Change Request Continuation Page
Page 1 of 2

YUCCA MOUNTAIN PROJECT
CHANGE REQUEST(CR) CONTINUATION PAGE

Y-AD-055
01/89

1 Title of Change:	2 CR No.:
	3 Originator's Control No.:

4 Originating Org.:	5 Prepared By:	6 Date:

7
APPROVED BY REECo/YMP

* Construction Dept. Mgr._____
* Project Engineer_____
* Project Quality Assurance Mgr._____

Page
____ of ____

Exhibit II
Modified Change Request Continued Page
Instructions
Page 2 of 2

Block 1 Descriptive Title from page 1 of CR.

Block 2 CR number from page 1 of CR as obtained from T&MSS CMO.

Block 3 REECo control number as shown on page 1 of CR.

Block 4 REECo/YMP.

Block 5 Name of individual preparing the form (P.E. or designee).

Block 6 Date of CR origination.

Block 7 Signatures of REECo/YMP CDM, P.E. and PQAM as required.

Exhibit III
Change Control Process Logic Diagram

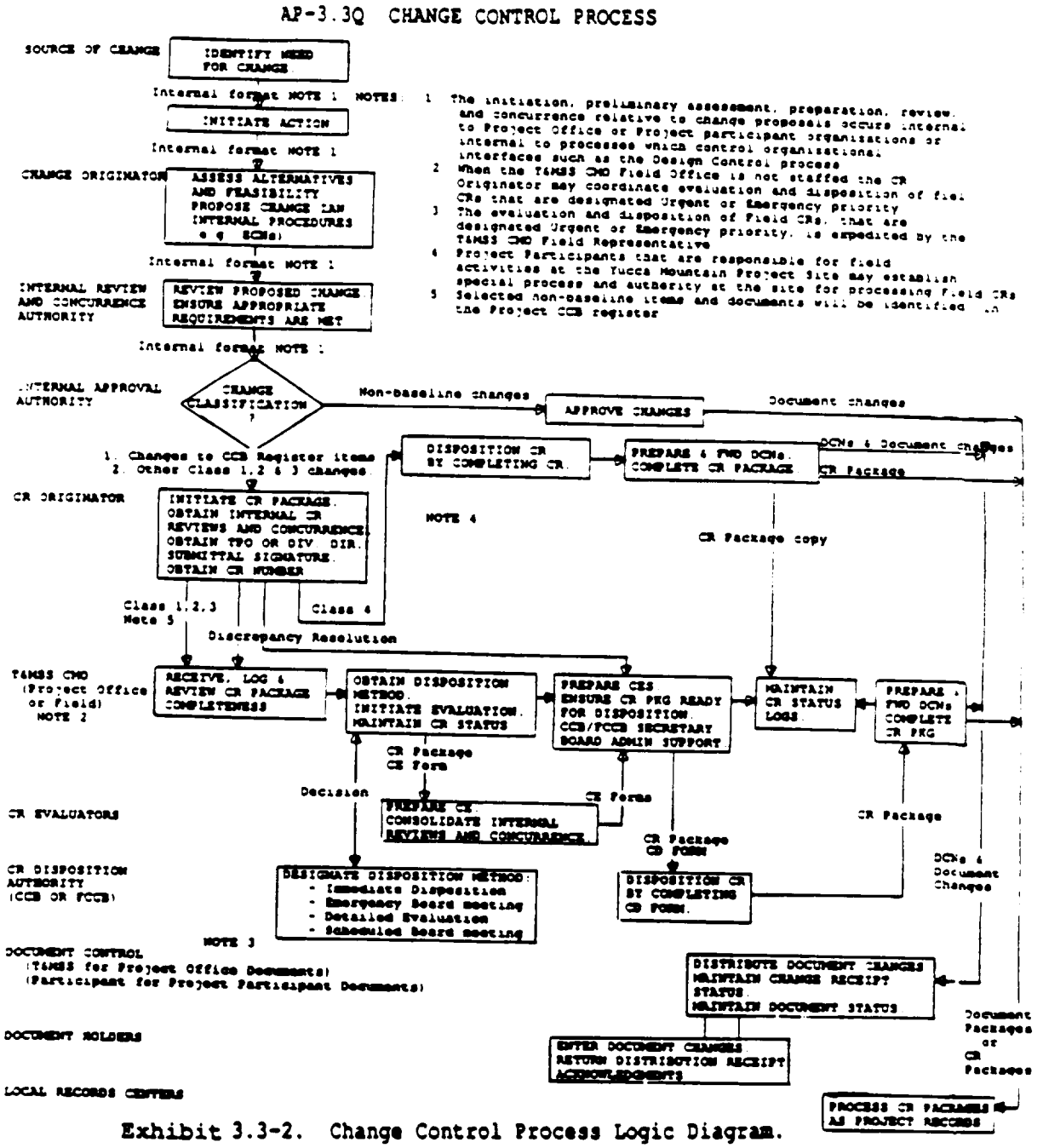

Exhibit 3.3-2. Change Control Process Logic Diagram.

Exhibit IV
Typical Change Request Package Structure

YUCCA MOUNTAIN PROJECT
ADMINISTRATIVE PROCEDURE
CONTINUATION PAGE

N-AD-00'8
11 88

Title

AP-3.3Q CHANGE CONTROL PROCESS

AP-3.3Q CHANGE CONTROL PROCESS

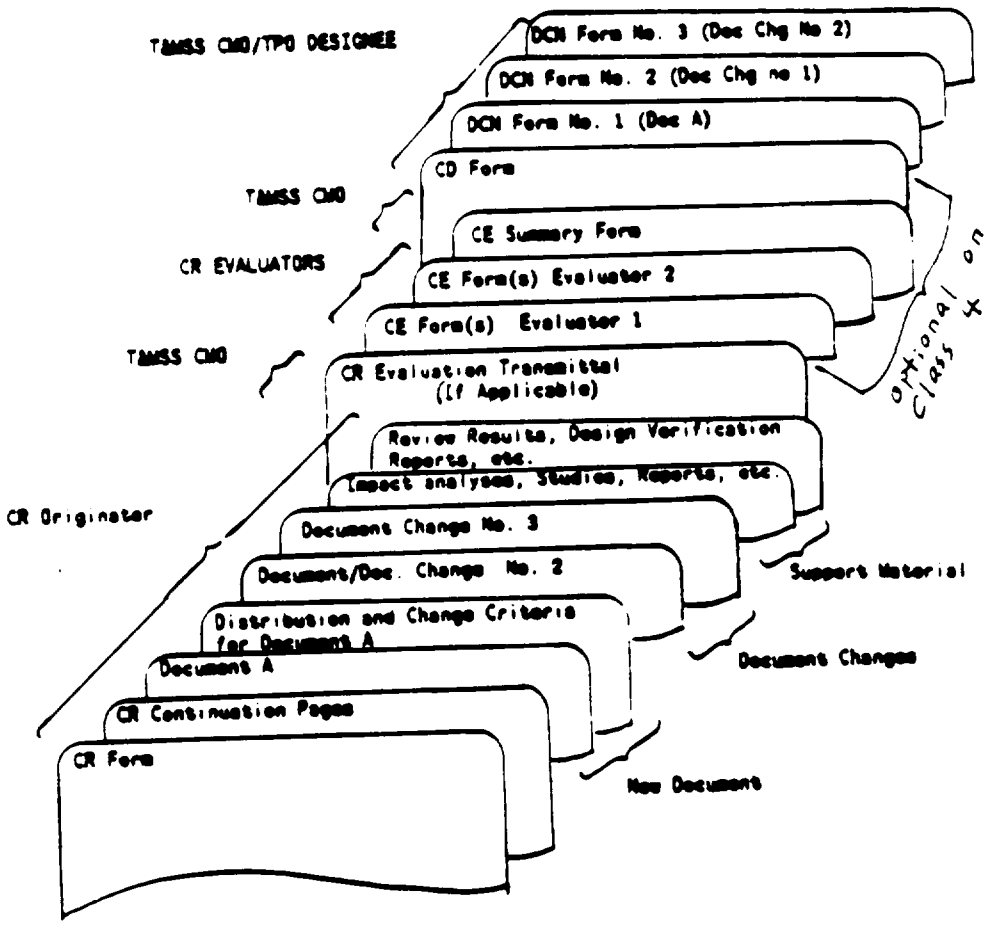

Exhibit 3.3-3. Change Request Package Structure.

Effective Date	Revision	Supersedes	Page	No.
1/17/89	1	Rev.0, dtd. 1/15/85	17 of 37	AP-3.3Q

Exhibit V
Change Request Log
Page 1 of 2

CHANGE REQUEST LOG

1 ORIG.	2 TITLE OF CR/FCR	3 ORIG. DATE	4 CRF/FCR#	APPROVED BY DATES 5 P.E.	6 CDM	7 PQAM	8 TPO	9 DATE TO CMO	10 CB APP'D	11 DATE COMPLETED

Exhibit V
Change Request Log
Instructions
Page 2 of 2

INSTRUCTIONS FOR PREPARATION OF CHANGE REQUEST LOG
CHANGE REQUEST LOG

1. Name of Originator of CR.
2. Title of CR/FCR.
3. Date of Origin.
4. CR/FCR Number.
5. Date Approved by P.E.
6. Date Approved by CDM.
7. Date Approved by PQAM.
8. Date Approved by TPO.
9. Date Forwarded to CMO.
10. Date Approved by CCB/FCCB.
11. Date Change Completed.

Exhibit VI
Change Directive
Page 1 of 2

YUCCA MOUNTAIN PROJECT
CHANGE DIRECTIVE (CD)

Y-AD-057
01/89

IDENTIFICATION

1 Title of Change:

2 CR No.:

3 Change Classification:
☐ Class 1 ☐ Class 3
☐ Class 2 ☐ Class 4
☐ Non-Baseline CCB Controlled Document

DISPOSITION

4 CR Disposition:
☐ Approved
☐ Approved with Conditions ☐ Disapproved

5 Conditions:

6 Implementation Direction:

CONCURRENCE

7 Directive Issued By:
Name: _____ Org.: _____
Signature: _____ Date: _____

8 Release Date: (Optional)

9 Class 4 Change Only:
Division Director Name: _____ Division: _____
Signature: _____ Date: _____

10 Quality Class 1 & 2 Item or Document Change Only:
Name: _____ Title: _____
Signature: _____ Date: _____

Page ____ of ____

Exhibit VI
Change Directive
Instructions
Page 2 of 2

INSTRUCTIONS FOR PREPARATION OF CHANGE DIRECTIVE (CD) FORM Y-AD-057

Block 1. Repeat the entry from CR Form block 1 of page 1.

Block 2. Repeat the entry from CR Form block 2 of page 1.

Block 3. Repeat the entry form CR Form block 8 of page 1.

Block 4. Mark the box that indicates the disposition of the proposed change.

Block 5. Explain any conditions that have been specified for approval of the proposed change. Identify any applicable deviations or waivers. If the proposed change is not approved, provide the rationale for disapproval.

Block 6. Enter specific guidance and direction to the organization charged with implementing the change.

Block 7. Print the name and title of the disposition authority (CCB Chairperson for Class 1 and 2 CRs, FCCB Chairperson for Class 3 and Urgent and Emergency Class 2 Field CRs, TPO for Class 4 CRs). The disposition authority enters signature and date fo the disposition.

Block 8. Enter the release date when the CR will become effective for implementation, if desired.

Block 9. For Class 4 CRs only, the cognizant Project Office Division Director indicates concurrence or non-concurrence with the CR Classification, and enters signature and dates.

Block 10. For CRs affecting Quality Level I or II items or documents, the appropriate Quality Assurance Organization representative enters the name, QAO identification, signature and date of concurrence.

Exhibit VII
Document Change Notice
Page 1 of 2

YUCCA MOUNTAIN PROJECT
DOCUMENT CHANGE NOTICE (DCN)

Y-AD-059
02/89

1 Document Title:	2 Document Number:
	3 Date Prepared:

The document identified in Blocks 1 and 2 has been changed. The changed pages attached to this DCN are identified in Block 6 opposite the latest DCN number in Block 4. The original issue of this document as modified by all applicable DCN's constitutes the current version of the document identified in Blocks 1 and 2.

4 DCN NO.	5 CR NO.	6 AFFECTED PAGES	CHANGE	ADD	DELETE	7 DATE

Page of

Exhibit VII
Document Change Notice
Instructions
Page 2 of 2

INSTRUCTIONS FOR PREPARATION OF DOCUMENT CHANGE NOTICE (DCN) FORM Y-AD-059

Block 1. Enter the title of the document being changed.

Block 2. Enter the number of the document being changed and the current revision number.

Block 3. Enter the date the DCN was prepared.

Block 4. Enter the next applicable DCN number.

Block 5. Enter the number of the CR that was used to effect the specific change.

Block 6. List the page numbers for any pages affected and indicate the type of change that has been implemented by checking the appropriate column.

Block 7. Enter the date on which the change became effective.

Exhibit VIII
Change Control Approval Classification

YUCCA MOUNTAIN PROJECT
ADMINISTRATIVE PROCEDURE
CONTINUATION PAGE

N-AD-001B
11/88

Title

AP-3.3Q CHANGE CONTROL PROCESS

CHANGE CONTROL APPROVAL CLASSIFICATION

CHANGE THRESHOLD CRITERIA

CHANGE CLASS	APPROVAL LEVELS	TECHNICAL/SCOPE	SCHEDULE	COST
1	PROGRAM DOE/HQ	Under Program Office control.		
2	PROJECT OFFICE	Multiple participants affected. Division Directors review/ approve and comment on affect. Within approved System/ Subsystems Requirements Documents Does not Affect the Program baseline.	Less than 1 month effect on any level 1 milestone.	Cost does not exceed 15% of the 3rd level WBS funding.
3	PROJECT FIELD CHANGE CONTROL BOARD	Multiple participants affected. One participant affected by cost or schedule impacts. Within approved Requirements Documents.	Less than 1 month effect on any level 2 milestone.	Less than $250K and within approved budget.
4	PROJECT PARTICI-PANTS	Impacts no other participants. Participant's manager has authority for making change. Minor changes to design, construction, specifications. Within related Requirements Documents.	Less than 1 month effect on any level 2 milestone. Over 1 month for any level 3 milestone.	Less than $100K and within approved budget

Exhibit 3.3-10. Change Control Approval Classification.

Exhibit IX
Classification of Changes
Page 1 of 3

APPENDIX A

Classification of Changes

1.0 Proposed changes are classified according to the authority responsible for disposition of the change in accordance with criteria summarized in Exhibit 3.3-40 and the following amplification.

2.0 Class 1 changes affect the items or documents under DOE/HQ control because they affect the Office of Civilian Radioactive Waste Management (OCRWM) Program Baseline or OCRWM policy and positions. These changes include:

1. Changes that affect or deviate from the OCRWM baseline.
2. Changes impacting baselined Program MSA milestones that require OCRWM approval prior to approval and implementation.
3. Changes to Levels 1 through 4 of the Program WBS.
4. Changes that exceed 15 percent of the third level WBS for the Project.
5. Changes to the OCRWM WBS Dictionary.
6. Budget changes that exceed the financial thresholds specified in OCRWM annual budget guidance to the Project.

3.0 Class 2 changes exceed the cost or schedule impact authority of TPOs or the PCCB, or impact multiple participants. Class 2 changes affect items or documents in the Project Baseline, and Project items and documents not in the Project Baseline that are identified in the Project CCB Register. These changes include:

1. Changes that have more than a one-month effect on any level 2 milestone, but have less than a one-month effect on any level 1 milestone.
2. Changes that are outside of approved Project-controlled budgets, but that are less than 15 percent of the third level WBS.
3. Changes that affect the WBS responsibility or more than one Project participant.
4. Changes that affect interfaces between participants.

Exhibit IX
Classification of Changes (Cont.)
Page 2 of 3

5. Changes that are within system or subsystem requirements documents that are approved above the Project level.

6. Changes to system or subsystem requirements documents that have been approved at the Project level.

7. Changes to Level 5 and above of the Project WBS or WBS Dictionary.

8. Changes that propose an item or document to be added to or removed from the Project Baseline or Project CCB Register without regard to other Class 3 or 4 criteria in this attachment.

4.0 Class 3 changes exceed the cost or schedule impact authority of TPOs, or impact multiple participants. Class 3 changes affect items or documents in the Project Baseline, and Project items and documents not in the Project Baseline that are identified in the Project CCB Register. These changes include:

1. Field changes that have more than one-month effect on any level 3 milestone, but have less than one-month effect on any level 2 milestone.

2. Field changes that are within approved Project budgets, and are less than $250,000.

3. Field changes that affect the WBS responsibility of multiple Project participants.

4. Field changes that affect the WBS responsibility of one Project participant, but are greater than $100,000 and less than $250,000.

5. Field changes that are within approved system or subsystem requirements documents.

6. Field changes to requirements documents that have been approved at the Project level.

5.0 Class 4 changes impact only one Project participant and are within the authority of the participant TPO. Class 4 changes affect items or documents in the Project baseline, and Project items and documents not in the Project Baseline that are identified in the Project CCB Register. These changes include:

1. Changes, including field changes, that have more than one-month effect on any level 3 milestone, or have less than one-month effect on any level 2 milestone.

Exhibit IX
Classification of Changes (Cont.)
Page 3 of 3

YUCCA MOUNTAIN PROJECT
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CONTINUATION PAGE

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AP-3.3Q CHANGE CONTROL PROCESS

2. Changes, including Field Changes, that are within the approved budget, and are less than $100,000.

3. Changes that affect the WBS responsibility of one Project participant, including minor changes to design documents, construction details, and specification documents.

4. Changes that are within related requirements documents that have been approved at the Project Office level.

5. Changes to system or subsystem requirements documents that have been approved at the Project participant level.

6.0 Selected non-baseline documents are identified in the Project CCB Register. Changes to these documents shall be processed as CRs and dispositioned in accordance with Sections 5.4 through 5.8 of this procedure.

Source: YMP Project AP-3.3Q

Effective Date	Revision	Supersedes	Page	No.
1/17/89	1	Rev.0, dtd. 1/15/85	35 of 37	AP-3.3Q

Exhibit X
Factors for Consideration in Preparing CRs
Page 1 of 2

APPENDIX B

Factors for Consideration in Preparing CRs

1.0 The status of ongoing activities, such as testing or construction, that may be impacted by a proposed change. Organizations responsible for impacted activities shall be notified of the proposed change by the CR originator.

2.0 Costs required to develop the documentation supporting the proposed change.

3.0 Requirements for reporting the condition to the Nuclear Regulatory Commission (NRC) per 10 CFR 60.73, "Reports of Deficiencies," and other applicable regulations. Appropriate action shall be initiated if the condition is reportable.

4.0 Identification of other affected documents that will require changes at all applicable tiers. Related CRs should be processed in parallel where there are interfaces, and submitted concurrently to the appropriate authority for CR disposition.

5.0 The need for performing independent peer review and/or design verification activities, as appropriate. In cases where these activities require significant expenditures or schedule delays, such as prototype testing, a Project baseline cost or schedule change may be necessary prior to CR disposition, or proceeding further with CR development.

6.0 The originator shall ensure that all internal organizational or quality assurance requirements, for the review of the documents or document changes being proposed, have been completed prior to initiating a CR, and shall include or summarize the results of such reviews in the CR package.

7.0 Change requests to the Project Baseline will be originated when one of the following is discovered:

1. A changed condition or plan.
2. A latent defect.
3. An error in released technical data that conflicts with other technical data.
4. Interface redefinition.

Exhibit X
Factors for Consideration in Preparing CRs (Cont.)
Page 2 of 2

YUCCA MOUNTAIN PROJECT
ADMINISTRATIVE PROCEDURE
CONTINUATION PAGE

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11/88

Title

AP-3.3Q CHANGE CONTROL PROCESS

APPENDIX B (Cont.)

5. A change will affect a significant cost saving.

6. A change in requirements.

8.0 The need for change outside of an organization's area of responsibility shall be brought to the attention of the appropriate Project Office Division Director so the responsible organization can be notified of the need for CR origination.

9.0 When a proposed change requires changes to more than one document in the Project CCB Register, the CR(s) shall be assigned the higher change classification, and all changes may be included on one CR. If separate CRs are used, the CRs shall cross-reference each other an be processed in parallel when possible. CRs shall not be subdivided to circumvent the designated level of authority for CR disposition.

Source: YMP Project AP-3.3Q

Effective Date	Revision	Supersedes	Page	No.
1/17/89	1	Rev.0, dtd. 1/15/85	37 of 37	AP-3.3Q

Reynolds Electrical & Engineering Co., Inc.	TITLE TECHNICAL ASSESSMENT REVIEW	NO. QP 3.3
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		DATE 5/26/89
	Technical Project Officer	DIST 23

INFORMATION COPY

Revision 1: This revision supersedes QP 3.3, revision 0, 03-01-89

1.0 PURPOSE AND SCOPE

1.1 This procedure defines the responsibilities and methodology for performing Technical Assessment Reviews in support of the DOE Yucca Mountain Project Office (YMPO).

1.2 The procedure describes how REECo Yucca Mountain Project (YMP) personnel will interface with other Project participants under the latest revision to the YMPO, Quality Management Procedure QMP-02-08.

2.0 APPLICABILITY

2.1 This procedure concerns Technical Assessment Reviews requested by the YMPO. A Technical Assessment Review is one of a set of review methods defined for the YMP in Section 4.2.5 of the Systems Engineering Management Plan (SEMP).

2.2 This procedure can be used in meeting the requirements for technical reviews defined in the SEMP and in U.S. Department of Energy (DOE) order 4700.1, Attachment III-1, Page III-47, Section 2.

2.3 Unless directed by the YMPO, under the specific instructions governing the request for a Technical Assessment Review, these reviews as applied to REECO, will cover primarily those areas concerned with constructability, industrial safety and fire protection, use of standard construction practices, quality assurance, operations, maintenance and test support.

2.4 Additional areas of concern may be addressed when determined necessary by the REECo/YMP Construction Department Manager in a review including procurement, subcontract administration, environmental protection, permitting, and other areas as required.

2.5 REECo's review will not include a design analysis or a verification of the design methodology, calculations, etc.

APPROVED: Mous Box DATE 5/25/89
PROJECT QUALITY ASSURANCE MANAGER

APPLICABILITY (Continued)

2.6 All Technical Assessment Reviews associated with the YMP will be coordinated through the TPO and ESF Project Office Technical Staff. This procedure will apply to all REECo participants involved with the YMP activities.

3.0 REFERENCES

3.1 REECo Quality Assurance Program Plan, (QAPP) 568-DOC-115, for the Yucca Mountain Project.

3.2 QP 17.0, Quality Assurance Records.

3.3 QMP-02-08, Technical Assessment Review, Waste Management Project Office Quality Management Procedure.

4.0 DEFINITIONS

4.1 Constructability Review - Constructability is defined as the attributes of the design drawings, specifications, or other documents, which allow safe, economic, and timely construction using those normal resources and standard construction practices and operating procedures associated with the Nevada Test Site, the YMP, and good industry construction practice.

4.1.1 A constructability review includes a review of Project plans, drawings, specifications, engineering studies, and other documents as requested by the Technical and Management Support Services (T&MSS) Contractor for the purpose of determining their clarity relative to constructability and to determine if construction of facilities and utilities is practical as indicated.

4.1.2 The constructability review also includes an assessment of the design documents from the standpoint of industrial safety, fire protection, operations, maintenance, and test support. Refer to Exhibits II and III.

4.2 Standard Construction Practices - Standard construction practices are defined as those procedures, methodology, equipment and materials which are commonly used at the Nevada Test Site and/or used within other conventional construction projects, located outside the Nevada Test Site.

4.3 Test Support - Test Support includes the many tasks assigned to REECo to support the scientific testing program. Areas of specific review would include drilling, sample gathering, test bed construction, equipment installation and utilities.

4.4 Appendix A, Terms and Definitions, of 568-DOC-115, contains general definitions.

DEFINITIONS (Continued)

5.0 **RESPONSIBILITIES**

5.1 Technical Project Officer (TPO) - The Technical Project Officer or designee, is responsible for ensuring that REECo participates in Technical Assessment Reviews requested by the YMPO.

5.1.1 The TPO receives the request to provide personnel to conduct a Technical Assessment Review in accordance with QMP-02-08.

5.1.2 The TPO then assigns the Technical Assessment Review task to the Construction Department Manager (CDM).

5.1.3 Next, the CDM through the TPO, informs the YMPO and Technical Assessment Review Chairperson of the assigned reviewers, including who is the designated Project Manager or his alternate.

5.1.4 The CDM, through the TPO, forwards the required personal information for each reviewer as required by QMP-02-08 to the YMPO.

5.1.5. The TPO, assisted by the CDM, mediates any unresolved comments resulting from the review process in accordance with QMP-02-08.

5.2 Construction Department Manager (CDM) - The Construction Department Manager selects a lead reviewer and additional review team members considered necessary.

5.2.1 The CDM assures that all review team members are technically qualified and oversees the preparation of all necessary documentation for the TPO to forward to the YMPO.

5.2.2 The CDM assures that all review team members are prepared to conduct the review in a professional and timely manner, in accordance with QMP-02-08, and provides guidance as to how the review is to be conducted.

5.2.3 The CDM normally assumes the role of lead reviewer and/or review team member. The CDM may delegate the role of lead reviewer to a staff review team member.

5.3 Lead Reviewer (LR) - The Lead Reviewer under the direction of the PM is responsible for coordinating the activities of the Technical Assessment Review Team and assures that all comments and statements are consistent with REECo's functional and operational requirements, plans, policies and procedures.

5.3.1 The LR is responsible to review the required documents and provide constructability comments in his or her area of technical expertise in accordance with those applicable instructions as described in the APPLICABILITY, DEFINITIONS, PROCEDURES and EXHIBITS II and III of this procedure. The LR evaluates proposed resolutions of all comments from the REECo review team members and signs off all comment resolutions, except those elevated to the TPO level, in accordance with QMP-02-08.

REFERENCES (Continued)

5.4 Review Team Member (RTM) - The Review Team Member is responsible to review the required documents and provide comments in his or her area of technical expertise in accordance with the applicable instructions in the APPLICABILITY, DEFINITIONS and PROCEDURES sections of this procedure.

5.4.1 The RTM may, at the discretion of the LR and/or CDM, participate in the evaluation of proposed comments resolutions with the Architect Engineers (A/E's).

6.0 PROCEDURE

6.1 Initiation of the Technical Assessment Review

6.1.1 The TPO, upon receipt of a written request for a Technical Assessment Review from the YMPO, assigns the responsibility for overseeing and coordinating the Technical Assessment Review to the CDM.

6.1.2 Upon selection of the REECo review team by the CDM, the TPO then informs the YMPO and the Technical and Management Support Services (T&MSS) contractor review chairperson of the names of REECo LR, the RTM, and their qualifications.

6.1.3 The CDM will determine the specific areas of review in accordance with the APPLICABILITY section of this procedure and any specific instructions from the REECo YMP office.

6.1.4 Each Review Team Member shall complete training by the T&MSS in QMP-02-08 prior to the initiation of the Technical Assessment Review Process.

6.2 Team Selection

6.2.1 The CDM selects the LR and RTM and oversees the preparation of a memorandum listing each RTM's qualification as required by the Technical Assessment Review Chairperson per QMP-02-08.

6.2.2 A Proficiency Review Report (PRR) will be completed for each review team member and signed by the TPO. Refer to Exhibit I.

6.2.3 At the same time, a check will be made to verify that a "YMP Qualification Record," RE-7229 (signed by the TPO or designee) and a YMP Qualification Record Statement, (signed by the REECo Recruiting and Employment Administrator), has been completed and is in the REECo Project files.

6.2.4 If not, the subject forms will be completed at the earliest possible time prior to the start of the Technical Assessment Review.

6.2.5 The original of the Proficiency Review Report will be hand-delivered to the Technical Assessment Review Chairperson on the first day of the review.

PROCEDURES (Continued)

6.2.6 An official letter confirming transmittal of the proficiency review will be sent to SAIC with a copy to YMPO.

6.3 Technical Assessment Review Package

6.3.1 The LR will assure that all team members have the proper review package as provided by the T&MSS Technical Assessment Review Chairperson.

6.3.2 In addition, the LR will assign to each RTM specific sections of the documents being reviewed, based on the experience, background and expertise of each reviewer.

6.4 Technical Assessment Review

6.4.1 Each of the Technical Assessment Reviewers will review and comment in accordance with QMP-02-08 and the instructions included in this procedure.

6.4.2 During the Technical Assessment Review, REECo reviewers will be assessing the documents for constructability.

6.4.3 As such, the REECo constructability reviews will be made using the Constructability Review Outline, Exhibit II and Constructability Review Checklists, Exhibit III, as general guidelines.

6.4.4 REECo will conduct formal constructability reviews whenever requested by the YMPO.

6.4.5 The T&MSS Contractor Technical Assessment Review will focus on a review of the adequacy of the design itself, as well as on constructability.

6.4.6 The REECo constructability review will be directed towards an assessment of the design documents from the standpoint of ease and practicality of construction, economy of construction, industrial safety, fire protection, standard construction practices, quality assurance, operations, maintenance and test support.

6.4.7 Refer to the Applicability and Definitions Sections above and to Exhibits II and III.

6.4.8 REECo will also comment on obvious design errors and mistakes, if observed during the constructability review.

6.5 Resolution of Technical Assessment Review Comments

6.5.1 The resolution of the Technical Assessment Review comments will be accomplished in accordance with the procedures outlined in QMP-02-08.

6.5.2 The LR is responsible for evaluation and acceptance of all review comment resolutions agreed to between the REECo Technical Assessment Review Team and the A/E's.

PROCEDURES (Continued)

6.5.3 The LR will sign off for REECo on all accepted resolutions for review comments.

6.5.4 Any A/E comment resolutions not acceptable to both REECo and the A/E are elevated to the TPO in accordance with QMP-02-08.

7.0 QA RECORDS

7.1 Technical Assessment Review Record and Proficiency Review Reports generated by the implementation of this procedure shall be considered as QA Records and shall be handled and maintained in accordance with QP 17.0.

8.0 EXHIBITS

8.1 Proficiency Review Report, Exhibit I.

8.2 Constructability Review Outline, Exhibit II.

8.3 Constructability Review Checklists, Exhibit III.

Exhibit I
Proficiency Review Reoirt
Page 1 of 2

REECo/YMP PROFICIENCY REVIEW REPORT

Review Date_____

Name_____ Title_____

The proficiency review is based on the experience, knowledge, and training of the individual. The activities the individual is capable to perform are listed below.

ACTIVITIES:

Proficiency Report Conducted and Certified By:

Signature:_____ Title:_____

Date:_____

Exhibit I
Proficiency Review Report
Instructions
Page 2 of 2

Instruction Number	Description
1.	Enter the name of the individual participating in the Technical Assessment Review.
2.	Enter the review date.
3.	Enter the title of the individual.
4.	Describe the activities that the individual is capable of performing, based on education and experience. Include a brief description of the individuals evaluation.
5.	Signature of the Technical Project Officer (TPO).
6.	Title "Technical Project Officer".
7.	Date TPO signs the form.

Exhibit II
Constructability Review Outline
Page 1 of 2

I. The Constructability Review is a review of project plans, drawings, specifications and other documents from a construction and contract administration point of view with the purpose of:

A. Determining the clarity of project plans, drawings, and specifications.

B. Determining the practicality of the construction of the facility and its features as specified.

C. Identifying possible problems that may affect construction at a late date.

II. Constructability Reviews are necessary because errors and omissions in final plans and specifications generate problems that impede performance, i.e.:

A. Processing and executing contract modifications to correct errors, omissions, and ambiguities in contract related documents results in a diversion of resources from the construction effort, subcontract administration and the primary quality assurance effort.

B. Negotiating corrections to contract documents after award rather than relying upon competitive bidding, which provides the lowest cost, schedule delays and possibility of subsequent subcontractor claims.

C. Impaired mission performance and customer dissatisfaction result from higher costs and delayed contract completion.

III. Constructability Reviews should be made at appropriate times during the design phase. For instance, during Title II design, the following reviews are usually conducted:

A. An initial review is normally made at the 30 percent stage of completion.

B. A second review should be made at the 60 to 70 percent stage of design completion.

C. A third review should be made at the 90 to 100 percent stage of design completion.

IV. The review of project plans, drawings, specifications, and other documents should be made utilizing generally accepted guidelines prioritizing review items to provide a thorough review while minimizing review time.

Exhibit II
Constructability Review Outline (Cont.)
Page 2 of 2

V. Constructability Review comments will be made on the Technical Assessment Review Comment Record form in accordance with the latest revision to the YMPO QMP-02-08.

Exhibit III
Constructability Review Checklists
Page 1 of 4

Note: This checklist is a general guideline only.

A. Quality Assurance

- Are the QA elements addressed in compliance with the REECo YMP Quality Assurance Program?
- Are the correct codes and standards referenced?
- Are the codes/standards compatible and reasonable?
- Are tests specified and reasonable?
- Is the accept/reject criteria clearly defined and verifiable?
- Are the calibration requirements specified and per code/standard?
- Are the vendor data requirements adequate and complete?
- Are specified material standards appropriate?
- Are the receipt inspection requirements adequate and reasonable?
- Can the specification or any of the documents be modified to reduce cost without sacrifice to quality or safety?
- Are welding process correct including weld quality requirements?
- Are hold points and witness points required and identified?
- Are QA levels properly identified on the drawings and specifications?
- Have all necessary work procedures been identified in the specifications as deliverable times?

B. Engineering/Construction

- Do the design documents delineate a project that can be bid, built, under a fixed price contract, and inspected with a minimum of problems? (Field changes or claims.)
- Do the drawings clearly define the scope of work and quantities of material?
- Will the design of the project systems, subsystems, and components adequately meet/provide for the functional, operational and testing requirements of the program?

Exhibit III
Constructability Review Checklists (Cont.)
Page 2 of 4

- Are the design general arrangements, configurations, and sizing of facilities and utilities adequate to meet the needs of the project during construction, operations, and testing?
- Are the design concepts workable?
- Does the design adequately accommodate the approved performance criteria for the project systems, subsystems, and components?
- Are all items referenced on the drawing(s) addressed in detail sufficient to preclude use of unacceptable materials?
- Are draft specifications available for review with the drawings?
- Is the performance period indicated and realistic?
- Are known/potential interfaces identified?
- Are all support systems and GFE components delineated?
- Can the design documents be modified to reduce cost without sacrifice to quality or safety?
- Are the terms and conditions excessively restrictive in regards to specific manufacturer, constructor or vendor?
- Are these restrictions on the use of furnished equipment/services excessive?
- Is there sufficient information for determination of "or-equal" requirements?
- Is the "or-equal" approval authority defined?
- Are there any special tools/equipment required and the responsibility for providing it delineated (i.e., subcontractor)?
- With exception of the specialty items, are two or more candidate suppliers listed in the design documents for materials?
- To what extent will Government-Furnished equipment be utilized?
- Are laydown areas available and specified?
- Are there any space interferences?
- Is there performance period indicated and realistic?

Exhibit III
Constructability Review Checklists (Cont.)
Page 3 of 4

- What are the construction phase requirements, including long-lead construction/equipment items and weather?
- Are there any constraints which could impact construction including operating contractor activities?
- How will local site conditions and restrictions affect constructability?
- How will local construction customs affect constructability?
- Are the skills and availability of local labor sufficient?
- What is the availability and quality of local materials?
- Is all demolition clearly identified?

C. Subcontract Administration

- Are there any ambiguities in the design documents which might encourage contingency bidding?
- Are technical specifications free from conflicts with the General Provisions and General Conditions
- Are all of the required services/equipment adequately defined for fixed price contracting?
- Quality of bid documents, are they biddable as developed?
- Is the information presented complete for bidding?

D. Safety and Environmental

- Are adequate control devices provided to protect the environment during prosecution of work?
- Are there any safety precautions not addressed (personal, fire protection, material handling/storage, tools/equipment, hazardous materials, etc.)?
- Has the design of the systems, subsystems and components been accomplished in a manner that will enhance safety during construction, operations, and testing?

Exhibit III
Constructability Review Checklists (Cont.)
Page 4 of 4

- In particular the safety review will focus on the following items:
  - Walkways and working surfaces,
  - Equipment,
  - Guards and rails,
  - Steps and machinery,
  - Floor openings,
  - Egress and exits,
  - Electrical and lighting,
  - Fire protection.
- The environmental review will be concerned with the following:
  - Noise levels,
  - Air quality,
  - Lighting,
  - Chemical hazards,
  - Waste control,
  - Permitting.

Reynolds Electrical & Engineering Co., Inc.	TITLE PROCUREMENT DOCUMENT CONTROL	NO QP 4.0
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QUALITY PROCEDURE		DATE 5/26/89
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INFORMATION COPY

Revision 6: This revision supersedes QP 4.0, Revision 5, 04-06-89.

1.0 PURPOSE AND SCOPE

1.1 This procedure describes the methodologies and responsibilities to be used for the control of procurement documents such that applicable regulatory requirements and design bases are included or referenced in the procurement documents when procuring QA Level I and II material, equipment, parts, components, items, or services utilized on the Yucca Mountain Project (YMP). It delineates the actions that lead up to the actual purchase and will ensure that specified quality requirements are included.

2.0 APPLICABILITY

2.1 This procedure applies to all YMP procurement activities performed by REECo, whether initiated by the DOE/YMPO, participating organizations, or REECo.

3.0 REFERENCES

3.1 REECo Quality Assurance Program Plan, (QAPP) 568-DOC-115, for the Yucca Mountain Project.

3.2 QP 7.0, Control of Purchased Materials, Equipment, and Services.

3.3 QP 17.0, Quality Assurance Records.

3.4 Buyers Handbook, BH-6221

4.0 DEFINITIONS

4.1 Invitation for Bid (IFB) - A document prepared for distribution to prospective offerors requesting bids for furnishing items, materials, or services and the jobsite labor necessary to accomplish the task.

4.2 Purchase Order (PO) - A document containing contractual, technical, quality, and specific requirements for the successful bidder to furnish items or services.

APPROVED: _____ DATE 5/25/89
PROJECT QUALITY ASSURANCE MANAGER

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DEFINITIONS (Continued)

4.3 Purchase Requisition (PR) - The initiating document for procurement action. The PR describes the item, material, or service requested and includes either directly, or by reference, the technical descriptions, quality requirements, drawings and specifications affecting the procurement.

4.4 Request for Proposal (RFP) - A document prepared for distribution to prospective suppliers requesting proposals for furnishing items or services for delivery to the jobsite.

4.5 Subcontract - A document containing contractual, technical, quality, and specific requirements for the successful bidder to furnish items or services and the jobsite labor to accomplish the task.

4.6 Appendix A, Terms and Definitions of QAPP, 568-DOC-115, contains general definitions.

5.0 RESPONSIBILITIES

5.1 Technical Project Officer (TPO) - The Technical Project Officer is responsible for assuring adherence to this procedure.

5.2 Requisitioning Organizations - Requisitioning Organizations are responsible for assuring that purchase requisitions which they initiate include the applicable drawings, specifications, pertinent procurement documents, and a completed Technical Inspection Report which is based on the specified requirements governing the items, materials or service to be ordered. They are responsible for review and approval of the purchase order document package to assure the required technical requirements have been met.

5.3 Project Quality Assurance Manager (PQAM) - The Project Quality Assurance Manager is responsible for the review and approval of all Purchase Requisitions and the review and approval of QA Level I and II Purchase Orders to verify that the required quality requirements have been met.

5.4 Procurement Manager - The Procurement Manager is responsible for:

5.4.1 Being the one point contact for all procurements whether origination is REECo or external to REECo;

5.4.2 Assuring that purchase orders, subcontracts and their changes accurately reflect that items, material, or services ordered, as well as the technical and quality requirements, are as stated in the purchase requisition;

5.4.3 Assuring that required reviews and approvals are obtained for IFBs, RFPs, purchase orders, subcontracts, purchase requisitions and their changes;

5.4.4 Assuring that purchase orders and subcontracts are awarded only to suppliers appearing on the REECo/YMP Qualified Suppliers List (QSL);

RESPONSIBILITIES (Continued)

5.4.5 Forwarding a copy of QA Level I Purchase Orders and changes thereto, to the SAIC/T&MSS Project QA Department (QA Verification Division Manager).

6.0 PROCEDURES

6.1 Purchase Requisitioning for Items of Services

6.1.1 In preparing the Purchase Requisition the requisitioning organization shall assure that all procurement documents are identified by Work Order, WBS number, QA Level, and identifiable to the YMP. This identification shall be on the face of the document.

6.1.2 The requisitioning organization shall ensure that adequate information is provided to include applicable regulatory requirements, design bases, and other requirements in the Purchase Requisition to assure that adequate technical and quality requirements are included or referenced.

6.1.3 The requisitioning organization shall provide the applicable design bases and other requirements necessary to assure adequate quality shall be included or referenced in the Purchase Requisition, to the extent consistent with the importance, criticality, or complexity of the items being procured.

6.1.4 The Procurement Organization shall include such requirements into the appropriate Purchase Order.

6.2 Additional Requirements for the Procurement of Level I Items or Services.

6.2.1 The Purchasing Documents shall also include the following provisions as deemed necessary:

6.2.1.1 Scope of Work - A statement of the work to be performed by the supplier.

6.2.1.2 Technical Requirements - Where necessary, these requirements shall be specified by reference to specific drawings, specifications, codes, standards, regulations, procedures, or instructions, including revisions thereto, that describe the items or services to be furnished.

6.2.1.2.1 The procurement documents shall provide for identification of test, inspection, and acceptance requirements of the purchaser for monitoring and evaluating the supplier's performance to the extent specified by the organization originating the procurement action.

PROCEDURES (Continued)

6.2.1.3 QA Program Requirements - Procurement documents shall require that the supplier have a documented QA Program Plan that implements applicable portions of QAPP 568-DOC-115.

6.2.1.3.1 The extent of the program required shall depend upon the type and use of the item or service being procured and the direction of the initiating organization.

6.2.1.3.2 The procurement documents shall require the supplier to incorporate appropriate QA Program Plan requirements in subtier procurement documents.

6.2.1.3.3 The QAPP and documents of subcontractors for QA Level I purchases shall be reviewed and approved by PQA.

6.2.1.3.4 Those which do not adequately define QA requirements shall be corrected prior to initiation of activities specified by the purchase order or contract.

6.2.1.3.5 The extent of the programs required depends upon the type and use of the items or service being procured.

6.2.1.3.6 In developing QA requirements for test and other equipment, consideration shall be given to whether proper performance of that equipment can be determined during or after its use, i.e., whether failure or malfunction of the equipment can be detected.

6.2.1.4 Rights of Access - At each tier of procurement, the procurement documents shall provide for access to the suppliers' facilities and records for inspection by REECo, the YMPO, or other Project authorized representatives, including representatives of the organization initiating the procurement action.

6.2.1.5 Documentation Requirements - The procurement documents at all tiers shall identify the documentation required to be submitted to the purchaser.

6.2.1.5.1 The time of submittal shall also be established.

6.2.1.5.2 When REECo requires the supplier to maintain specific QA records, the retention times and disposition requirements shall be specified in accordance with the information provided by the organization initiating the need for the procurement action.

PROCEDURES (Continued)

6.2.1.6 Spare and Replacement Parts - The procurement documents shall require the identification of appropriate spare and replacement parts or assemblies and delineation of the technical and quality related data that is required for ordering parts or assemblies.

6.2.1.6.1 The technical and quality requirements shall be equal to or better than for the original item.

6.2.1.6.2 If QA or technical requirements of the original item cannot be determined by the organization initiating the need for the procurement action, then a documented engineering evaluation shall be conducted by qualified individuals to establish the requirements.

6.2.1.6.3 This evaluation shall consider the interchangeability, function, and safety of the item. This evaluation shall be documented.

6.2.1.7 Nonconformances - The procurement documents shall require the supplier to submit nonconformance reports for nonconformances occurring at the supplier's facility to the purchaser for disposition and/or approval. Nonconformances found during receipt inspection shall be processed in accordance with QP 15.0.

6.3 Purchase Requisition Review and Approval

6.3.1 For non-REECo requisitions the prepared Purchase Requisition and applicable drawings, specifications, catalogs, TIRs, and other necessary documents which make up the Procurement Package are reviewed for inclusion and technical adequacy of the technical requirements by the requisitioning organizations' technically qualified personnel.

6.3.1.1 For REECo requisitions, the Purchase Requisition shall be reviewed by a technically qualified reviewer for inclusion and technical adequacy of the technical requirements.

6.3.1.2 The reviewers of purchase requisitions/procurement documents shall have access to pertinent information and shall have adequate understanding of the requirements and intent of the procurement documents.

6.3.1.3 These reviews shall be all be documented.

6.3.2 Upon completion, the Purchase Requisition is forwarded to REECo/YMP PQA for review and approval.

DEFINITIONS (Continued)

6.3.3 REECo/YMP PQA reviews the Purchase Requisition for the inclusion of quality assurance requirements specified by the originating organization and for their compliance with 568-DOC-115.

6.3.4 For Non-REECo originated Purchase Requisitions, PQA will review for inclusion of the quality requirements specified by the originating organization.

6.3.5 For REECo originated Purchase Requisitions, PQA will assure that the following requirements are met:

6.3.5.1 QA requirements are correctly stated, inspectable, and controllable.

6.3.5.2 There are adequate acceptance and rejection criteria.

6.3.5.3 Procurement documents have been prepared, reviewed, and approved in accordance with this procedure.

6.3.5.4 The requisitions are reviewed, entered into the review log, and if acceptable, approved and forwarded to Procurement for further processing. If the quality criteria is inadequate or incomplete, the requisition is returned to the requisitioner for correction.

6.4 Development of Purchase Orders and Subcontracts

6.4.1 The Procurement Department processes the Purchase Requisition Package in accordance with BH-6221 and this procedure.

6.4.2 In the preparation of Purchase Orders the Procurement Office shall initiate the following actions:

6.4.2.1 Prepare Invitation for Bid(IFB)or Request for Proposal (RFP)

6.4.2.1.1 Each IFB or RFP for items or services must include the quality requirements as specified in the Purchase Requisition.

6.4.2.1.2 Procurement will coordinate with the PQAM and the Requisitioning Organization during the preparation of the IFBs or RFPs to assure that the appropriate quality and technical requirements are adequately described.

6.4.2.1.3 Prior to release, the PQAM and requisitioning organization will review and approve the IFB or RFP to verify the provisions of paragraph 6.4.2.1.2 have been included.

PROCEDURES (Continued)

6.4.2.1.4 After obtaining approvals, the Procurement Office will release the IFB or RFP to the prospective supplier.

6.4.3 Upon receipt of Bids or Proposals from prospective suppliers, Procurement shall initiate the following actions:

6.4.3.1 Evaluate the submittals with the assistance of PQAM and the requisitioning organization, as necessary, noting any exceptions to Purchase Requisition requirements.

6.4.3.2 The Procurement Office shall initiate the request for a supplier evaluation in accordance with QP 7.0.

6.4.3.3 The Procurement Office will prepare the award letter and obtain appropriate approvals subsequent to an acceptable supplier evaluation.

6.4.3.4 Prepare the Purchase Order including all technical and quality requirements.

6.4.3.5 The Purchase Order (PO) is forwarded to the requisitioning organization for review and approval.

6.4.4 The requisitioning organization shall assure that the proposed PO accurately reflects the requirements of the Purchase Requisition.

6.4.5 After signing to indicate approval, the PO is sent to the PQAM.

6.4.6 The PQAM shall, upon receipt of the proposed PO, perform a review to verify the following:

6.4.6.1 Technical organization approval.

6.4.6.2 PO and Revision No. indicated on cover page.

6.4.6.3 Purchase requisition and revision(s) indicated on cover page (Purchase Order and Change Order only).

6.4.6.4 All technical specifications and quality requirements are included as indicated by the corresponding PR(s) and any supplemental purchase requisition requirements.

6.4.6.5 All changes including changes made as a result of the bid evaluation of precontract negotiations have been incorporated into the procurement documents.

6.4.6.6 Verify that the supplier appears on the current QSL as a Qualified Supplier for the item or service to be supplied in accordance with limitations or restrictions for the item or service being procured.

PROCEDURES (Continued)

6.4.7 Project Quality Assurance will review the TIR for completeness and assurance that sufficient information is provided to perform QC receipt inspection to adequate acceptance/rejection criteria.

6.4.8 If the proposed PO is acceptable, PQA will indicate approval by signing and dating, forward the PO to the Procurement Manager for issuance.

6.4.8.1 If the proposed PO is unacceptable, PQA will note the deficiencies and return the package to the Procurement Manager for correction.

6.4.9 After verifying all required signatures have been obtained, the Procurement Manager shall issue the PO to the applicable Supplier.

NOTE: All of the above listed actions of this section will be similarly applied to Subcontracts by the Subcontracts Office of the YMP Division.

6.4.10 Procurement shall assure that the reviews of procurement documents, have been performed and documented prior to awarding a purchase order or contract.

6.4.11 Procurement shall forward a copy of QA Level I Purchase Orders and changes thereto, to the SAIC/T&MSS Project QA Department (QA Verification Division Manager).

NOTE: Only those purchase documents which identify the vendor, describe the scope of work, and detail when work is to start are required to be submitted.

6.5 Procurement Document Changes

6.5.1 Changes to PO/Subcontracts shall be initiated by using Purchase Requisitions in accordance with Paragraph 6.1. The Purchase Requisition shall state that all terms and conditions of the original PO/Subcontract apply, i.e., quality requirements, technical requirements, etc.

6.5.1.1 If changes require the addition and/or deletion to the technical and/or quality requirements, that shall be specified.

6.5.1.2 All changes to procurement documents, i.e., PO, PR, Subcontracts, shall be subjected to and require the same controls, technical/QA reviews and approvals as the original issue, reference section 6.3.

6.5.1.3 During the review of changes to procurement documents the following provisions shall be included in the review:

- Appropriate content has been included,

PROCEDURES (Continued)

- Additional or modified design or site investigation criteria has been determined,
- Analysis of exceptions/changes requested/specified by the supplier and determination of the effects such changes may have on the intent of the procurement documents or quality of the item/service to be furnished have been performed by the organization initiating the need for the procurement action.

6.5.1.4 Procurement shall assure that changes to procurement documents and their effects have been reviewed and received the proper approvals as required by section 6.3 of this procedure, prior to being issued to the supplier/subcontractor.

7.0 QA RECORDS

7.1 Purchase Requisitions, Purchase Orders, and other procurement documents generated by the implementation of this procedure shall be considered QA Records and shall be handled in accordance with QP 17.0

8.0 EXHIBITS

NONE

Reynolds Electrical & Engineering Co., Inc.	TITLE INSTRUCTIONS, PROCEDURES, AND DRAWINGS	NO. QP 5.0
		PAGE 1 1 of 4
YUCCA MOUNTAIN PROJECT	APPROVED	REV. 5
QUALITY PROCEDURE	127 President	DATE 5/26/89
	Technical Project Officer	DIST.

INFORMATION COPY

Revision 5: This revision supersedes QP 5.0, Revision 4, 01-03-89

1.0 PURPOSE AND SCOPE

1.1 This procedure, in conjunction with QP's 3.2, 3.3, 5.1, 5.2, 5.3, and 6.0, defines the manner in which instructions, procedures, and drawings are developed, reviewed, approved, revised and used on the Yucca Mountain Project (YMP).

2.0 APPLICABILITY

2.1 This procedure shall apply to all instructions, procedures, and drawings developed for use on the Yucca Mountain Project (YMP) and which delineate the requirements and controls for QA Level I and II activities.

2.2 As REECo does not prepare Scientific Notebooks nor conduct Scientific Investigations, this procedure shall not apply to their preparation, review or approval.

3.0 REFERENCES

3.1 REECo Quality Assurance Program Plan, (QAPP) 568-DOC-115, for the Yucca Mountain Project.

3.2 QP 3.2, Change Control.

3.3 QP 3.3, Technical Assessment Review.

3.4 QP 5.1, Preparation, Review, and Approval of Quality Procedures.

3.5 QP 5.2, Preparation, Issue and Control of Work Procedures.

3.6 QP 5.3, Preparation, Review, and Approval of Implementing Procedures.

3.7 QP 6.0, Document Control

3.8 QP 17.0, Quality Assurance Records.

APPROVED: Morris Blox DATE 5/25/89
PROJECT QUALITY ASSURANCE MANAGER

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PROCEDURE (Continued)

4.0 DEFINITIONS

4.1 Appendix A, Terms and Definitions, of 568-DOC-115, contains general definitions.

5.0 RESPONSIBILITIES

5.1 Each REECo/YMP organization is responsible for ensuring that they have approved instructions, procedures, or drawings to perform their assigned tasks prior to implementation.

5.2 Project Quality Assurance Manager (PQAM) - The Project Quality Assurance Manager is responsible for assuring that REECo/YMP quality documents are reviewed for both technical adequacy and QA compliance and that they are implemented.

5.3 Division and Department Managers - Division/Department Managers are responsible to assure that project procedures, instructions, and drawings are fully implemented in accordance with this procedure.

6.0 PROCEDURE

6.1 General

6.1.1 All work that affects quality shall be prescribed by and performed in accordance with clear, complete, and documented instructions, procedures, plans, or drawings of a type appropriate to the activity.

6.1.2 Instructions, procedures, and drawings shall include or reference appropriate quantitative or qualitative acceptance criteria for determining that prescribed activities have been satisfactorily accomplished.

6.1.3 Instructions and procedures shall include a section which provides identification of the QA records which are generated during implementation of the instruction/procedure.

6.1.4 Procedures shall be prepared in accordance with the requirements stated in QP 5.1, QP 5.2, or QP 5.3 as applicable to the activity.

6.1.5 If plans are used in lieu of procedures, these plans shall include a section which provides for appropriate acceptance criteria and identifies the QA records which are generated during implementation of the plan.

6.1.6 Instructions, procedures, plans and drawings and their changes shall be controlled in accordance with the requirements stated in QP 3.2, QP 5.1, QP 5.2, QP 5.3 and QP 6.0

PROCEDURES (Continued)

6.1.7 PQAM shall establish a series of Quality Procedures (QP's) and shall ensure that the program elements of the QAPP are appropriately addressed and adhered to.

6.1.7.1 These QP's shall be listed on the master list of REECo YMP Project documentation.

6.1.8 QP's, and other instructions, procedures, plans and drawings governing work activities, as well as criteria letters, work instructions, etc., provided to REECo for implementation, shall be available at the appropriatae work locations.

6.2 Documents Initiated External To REECo

6.2.1 Instructions, procedures, plans, and drawings initiated by the YMP/DOE Participating Organizations, or NTS Support Contractor will be forwarded through the REECo Technical Project Officer (TPO) for review and comment when the document pertains to or affects activities to be performed by REECo on the YMP.

6.2.1.1 The TPO will distribute received documents for review and comment by affected REECo organizational units.

6.2.1.2 All procedures received by the Technical or PQA reviewer shall be logged in a procedure review log

6.2.1.3 The review shall give consideration to the following items and shall be documented.

- Statement of the procedure's purpose.
- A complete sequential list of directions to obtain the objective under "Procedure".
- Clarity, unambiguity, definitiveness, and appropriateness to the circumstances.
- Qualitative and quantitative criteria for determining that activities have been satisfactorily accomplished.
- Special requirements.

6.3 REECo Initiated Documents

6.3.1 All Instructions, procedures, plans and drawings developed by REECo organizations shall be independently reviewed by the originating organization to assure technical adequacy and inclusion of appropriate quality requirements.

PROCEDURES (Continued)

6.3.1.1 The instructions, procedures, plans and drawings shall be distributed to other organizations for review and comment, as applicable, when created and when revised for both technical adequacy and compliance with QA requirements, as required by QP 6.0.

6.3.1.2 If applicable, this review shall consider whether or not the activities are repeatable, have the potential to impact waste isolation or interfere with other site characterization activities.

NOTE: The above reviews shall be documented and comments resolved prior to issue of the documents.

6.3.2 Organizations initiating drawings shall provide for the initiation, checking, approving, issuing, and change controls in accordance with QP's 3.2, 3.3, 5.1, 5.2, 5.3 and 6.0 for the necessary production of drawings.

6.3.3 For Quality Assurance Level I and II activities, a controlled copy of approved implementing procedures, plans, and instructions shall be sent to the YMP PQM and the SAIC/T&MSS Project Quality Assurance.

7.0 QA RECORDS

7.1 Instructions, Procedures, and Drawings generated as a result of the activities outlined in this procedure shall be considered QA Records and maintained in accordance with QP 17.0.

8.0 EXHIBITS

8.1 NONE

Reynolds Electrical & Engineering Co., Inc.	TITLE PREPARATION, REVIEW AND APPROVAL OF QUALITY PROCEDURES	NO QP 5.1
		PAGE 1 of 9
YUCCA MOUNTAIN PROJECT	APPROVED	REV 1
QUALITY PROCEDURE	R J Pritchett	DATE 5/26/89
	Technical Project Officer	DIST.

INFORMATION COPY

Revision 1: This revision supersedes QP 5.1, Revision 0, 03-24-89.

1.0 PURPOSE AND SCOPE

1.1 This procedure establishes the methods, requirements, and responsibilities for the preparation, revision, review, and approval of Quality Procedures required for the Yucca Mountain Project (YMP). It further provides for the uniform formatting and control of changes of all such procedures to ensure clarity, completeness and continuity.

2.0 APPLICABILITY

2.1 This procedure applies to all personnel who develop quality procedures which are written to implement the REECo Quality Assurance Program Plan (QAPP) for the Yucca Mountain Project and shall apply to Quality Level I and II activities.

3.0 REFERENCES

3.1 REECo Quality Assurance Program Plan (QAPP) 568-DOC-115, for the Yucca Mountain Project.

3.2 QP 5.0, Instructions, Procedures, and Drawings.

3.2 QP 6.0, Document Control.

3.4 QP 17.0, Quality Assurance Records.

4.0 DEFINITIONS

4.1 Quality Procedure (QP) - Procedures which are written and issued to provide implementation methods for programmatic requirements contained in the REECo/YMP QAPP.

APPROVED: _____ DATE 5/25/89
PROJECT QUALITY ASSURANCE MANAGER

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DEFINITIONS (Continued)

4.2 Quality Procedure Change Notice (QPCN) - The Quality Procedure Change Notice is a form used to notify quality procedure holders of changes and to expedite changes to procedures without the procedure having to be formally revised.

4.2 General definitions are contained in Appendix A of QAPP, 568-DOC-115.

5.0 RESPONSIBILITIES

5.1 Technical Project Officer (TPO) - The Technical Project Officer is responsible for the review and approval of procedures developed in accordance with this procedure.

5.2 Project Quality Assurance Manager (PQAM) - The Project Quality Assurance Manager is responsible for assuring that procedures are developed, reviewed, and approved which implement the REECo QAPP, 568-DOC-115. The PQAM is responsible for the review and approval of quality procedures.

6.0 PROCEDURE

6.1 Procedure Preparation

6.1.1 Procedure Numbering

6.1.1.1 Procedures shall be identified with assigned numbers in the form of QP X.Y, where "X" designates the applicable QAPP section to which the procedure applies and "Y" designates the sequential number issued for that section (e.g. QP 6.0, QP 6.1).

6.1.1.2 Procedure numbers will be assigned by the PQAM from the applicable "Procedures Index". If an issued procedure is cancelled, the index shall indicate that it was cancelled, and that number will not be reused. The index will be updated whenever a procedure is revised.

6.1.2 Procedure Format

6.1.2.1 QPs shall be prepared in the same format as this QP and will include the information listed below. When any of these items are not required or are inappropriate, the section number and heading will remain, noted by the word "NONE".

- 1.0 **PURPOSE AND SCOPE** - Describe the objectives of the procedure. Be as specific as possible; do not generalize. As part of the scope portion, briefly specify what actions prescribed by the procedure will include, i.e., responsibilities, requirements, documentation, etc. The writer shall provide assurance that only what is stated in this section is addressed in the body of the procedure.

PROCEDURES (Continued)

- 2.0 **APPLICABILITY** - List organizations, individuals, activities, or subactivities to which the procedure applies. Clearly define the limits of applicability and cite exceptions.

- 3.0 **REFERENCES** - Identify pertinent documents or procedures that interface or are directly applicable to the procedure being prepared. Include documents referenced in the body of the procedure.

- 4.0 **DEFINITIONS** - Define words and phrases having a special meaning of application within the procedure. The definitions must include terms that are consistent with the REECo/YMP QAPP 568-DOC-115.

- 5.0 **RESPONSIBILITIES** - Identify the key individuals/ organizations, and summarize their responsibilities for assuring compliance and/or implementing the procedure.

- 6.0 **PROCEDURE** - Identify the step-by-step sequence of activities to be followed including acceptance criteria when applicable, and the assigned responsibility for accomplishing activities. Be specific in context and include appropriate reporting requirements for assuring that important activities have been satisfactorily accomplished. Include a flow chart if the process is complicated.

- 7.0 **QA RECORDS** - Identify the specific documents generated by the implementation of the procedure that are to become QA records.

- 8.0 **EXHIBITS** - List and provide examples of forms specified in the procedure. Numbering of the exhibits shall be by roman numerals, i.e., Exhibit I, Exhibit II. If the form is complex, include instructions for its completion.

6.1.2.2 Each procedure section and subsections shall be structured as follows:

1.0 Section
  1.1 Subsection
    1.1.1 Sub-subsection
      1.1.1.1 Sub-sub-subsection

6.1.2.3 "NOTES" and "Bullets (°) will be used to denote items of importance and items of sequence.

PRODURES (Continued)

6.1.3 Procedure Content

6.1.3.1 Procedures which describe the quality requirements for the activity to be performed shall be prepared. These requirements shall be determined by the QAPP, 568-DOC-115, contract, specifications, codes, standards, and other programmatic documents.

6.1.3.2 Procedures shall identify, as applicable, the items, materials, activities or processes which require inspection, control, or verification, i.e., measuring and test equipment for inspection and test activities.

6.1.3.3 The organization developing the procedure shall assure that the procedure being developed does not conflict with existing procedures or that such conflicts are resolved.

6.1.3.4 Procedures shall provide a means of documenting the results of required inspections, verifications, and examinations.

6.1.3.5 Documentation generated as a result of a procedure shall include appropriate, necessary, and sufficient qualitative and quantitative acceptance criteria to assure compliance with specified requirements.

6.2 Procedure Review and Approval

6.2.1 Upon completion of writing, the draft procedure will receive a technical review for adequacy and correctness.

6.2.1.1 Reviews shall be independent and performed by individuals with expertise in the subject of the procedure and someone other than the author.

6.2.2 Draft procedures are identified by the fact that they are on plain white paper and not on the procedure form or stamped "Preliminary Draft" or "Draft".

6.2.3 Comments on a draft procedure will be made by marking up the procedure and documenting the comments on a Document Review Record, Exhibit I. The reason for any comment should also be provided.

6.2.3.1 Comments shall be returned to the originating organization by the due date specified on the distribution letter.

6.2.4 Comments returned to the originator are incorporated or resolved by the originator. Disputes will be resolved by the originator and the reviewer, if possible. If a dispute remains, the PQAM will provide a decision on the comment.

PROCEDURES (Continued)

6.2.5 After resolution of all comments, a marked-up copy of the procedure is forwarded to PQA. PQA shall prepare the procedure in final form and forward it to the PQAM and TPO for their review and approval.

6.2.6 Quality procedures and their revisions shall be issued and controlled in accordance with the requirements of QP 6.0.

6.3 Revision of Procedures

6.3.1 Individuals identifying the need for revisions to a quality procedure shall submit to the PQAM the proposed revision on a Quality Procedure Change Notice (QPCN), Exhibit 1.

6.3.1.1 QPCN's shall be logged and tracked on the Procedure Change Notice Log, Exhibit 2.

6.3.1.2 Assigned numbers shall be in the form of QPCN-XX-XX, where the first "XX" designates the year of issue of the QPCN and the second "XX" designates the sequential number issued from the QPCN Log.

6.3.2 The QPCN shall be reviewed by the PQAM and, if required by significance/ extent, a draft procedure incorporating the proposed revision shall be developed.

6.3.2.1 Otherwise the QPCN shall be reviewed and approved by the PQAM and TPO and issued in accordance with QP 6.0.

6.3.2.2 The purpose of the QPCN shall be to notify procedure holders of a revision to the procedure without the procedure having to be formally revised.

6.3.2.3 When there is a maximum of five (5) QPCN's outstanding against a given procedure, it shall be formally revised, in accordance with paragraph 6.3.3 thru 6.3.6.

6.3.2.4 Procedures shall be reviewed for possible revision at least annually as a minimum.

6.3.3 Procedures requiring revision shall be reviewed by PQA and, if required, a draft procedure incorporating the proposed revision will be developed.

6.3.4 Procedures, indicating the proposed revisions shall be subjected to the same process for preparation, review and approval as the original, in accordance with paragraph 6.2.

6.3.5 Revisions or changes shall be indicated by sidelining the right side of the page beside the changes. Only current changes need be identified.

PROCEDURES (Continued)

6.3.6 Other procedures affected by the revision of a procedure shall be revised accordingly.

7.0 QA RECORDS

7.1 Procedures and their revisions, the Procedures Index, Quality Procedure Change Notices, and Quality Procedure Change Notice Logs generated by the implementation of this procedure are QA Records and shall be handled in accordance with QP 17.0.

8.0 EXHIBITS

8.1 Document Review Record, Exhibit I

8.2 Quality Procedure Change Notice, Exhibit II

8.3 Quality Procedure Change Notice Log, Exhibit III

Exhibit I
Document Review Record

Reynolds Electrical & Engineering Co., Inc.

YUCCA MOUNTAIN PROJECT

DOCUMENT REVIEW RECORD

Document Reviewed _____
(Title, Number, and Revision)

Review Requirement Reference (QAPP, QP, etc.) _____

Satisfactory _____ Unsatisfactory _____

Reviewer _____ Date _____

Comments: (If additional space is required, use continuation sheet)

_____

Exhibit II
Quality Procedure Change Notice

(REECo LOGO) YUCCA MOUNTAIN PROJECT QUALITY PROCEDURE CHANGE NOTICE	QPCN No.:	Date:
	Quality Procedure No.:	Rev.:

Page	Paragraph	Description of Change
		SAMPLE

Originator:	Date:
APPROVALS	
Technical Project Officer:	Date:
Project Quality Assurance Manager:	Date:

Exhibit III
Quality Procedure Change Notice Log

(REECo Logo) YUCCA MOUNTAIN PROJECT
QUALITY PROCEDURE CHANGE NOTICE LOG

QPCN Number	Date of QPCN	Quality Procedure	Brief Description of QPCN	QPCN Originator	Date Incorp. Into Procedure
			SAMPLE		

Reynolds Electrical & Engineering Co., Inc.	TITLE PREPARATION, ISSUE, AND CONTROL OF WORK PROCEDURES	NO QP 5.2
		PAGE 1 of 26
YUCCA MOUNTAIN PROJECT	APPROVED	REV. 1
QUALITY PROCEDURE	R F Pritchett	DATE 5/26/89
	Technical Project Officer	DIST.

INFORMATION COPY

Revision 1: This revision, supersedes QP 5.2, Revision 0, 03-17-89.

1.0 PURPOSE AND SCOPE

1.1 This procedure describes the process and defines the responsibilities for the preparation, issue and control of construction and drilling work procedures for the REECo/Yucca Mountain Project. The procedure defines responsibilities, describes the work procedure format, how to prepare work procedures, the review and approval process, the issue and use of work procedures and how to make changes to work procedures.

2.0 APPLICABILITY

2.1 This procedure applies to the REECo/YMP Division and all REECo matrixed Divisions and Departments involved in the preparation of construction and drilling-related work procedures for the REECo/YMP Division. This Procedure applies to all construction work procedures that are required for Quality Level I and II Construction and Drilling items and activities. The procedure does not apply to Quality Level III Construction and Drilling items and activities. The procedure only pertains to construction and drilling activities that will be accomplished by REECo/YMP Division or its suppliers.

3.0 REFERENCES

3.1 REECo Quality Assurance Program Plan, (QAPP) 568-DOC-115, for the Yucca Mountain Project.

3.2 QP 3.2, Change Control.

3.3 QP 5.0, Instructions, Procedures, and Drawings.

3.4 QP 6.0, Document Control.

3.5 QP 10.0, Inspection.

3.6 QP 17.0, Quality Assurance Records.

APPROVED: Mark Fox DATE 5/25/89
PROJECT QUALITY ASSURANCE MANAGER

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PROCEDURE (Continued)

4.0 DEFINITIONS

4.1 Work Procedure (WP) - A work procedure is a set of written instructions that describes the sequence of work, equipment, construction aids, and special tools required to accomplish a given construction or drilling activity. The WP includes, in a single document, the work directing and special process control portions of a construction activity.

4.2 Hold Point (HP) - Hold Points will be noted in the Site Work Instruction section of the work procedure and will be identified by the letters HP and a specific identifier. A hold point is a point in a work process beyond which work will not continue without prior consent from the organization/ department that established the hold point. A hold point can identify a series of prior steps that must be completed before proceeding with work or a HP can identify a specific step requiring inspection or approval by an organization or department before continuing with the work.

4.3 Witness Point (WTP) - Witness Points will be noted in the Site Work Instructions section of the work procedure and will be identified by the letters WTP and a specific identifier. A witness point is a point in a work process scheduled for surveillance by the QC Inspector, or other participants, where work may proceed upon verbal release by the inspector or participant, or else upon the expiration of a specified time period (usually one hour wait) for inspection from the scheduled time.

4.4 Work Procedure Change Notice (WPCN) - The Work Procedure Change Notice is used to revise an approved WP in an expeditious manner and without the need to completely re-issue the WP. Work procedure change notices are tracked on a WP change status log. The WP, when accompanied by the approved WPCNs, will constitute a complete and controlled WP package. Periodically, and at least annually, the entire WP can be revised with the outstanding WPCNs incorporated therein. The WP should be revised after five to ten WPCNs have been approved, depending on the complexity of the WPCNs.

4.5 Change Status Log (CSL) - The Change Status Log will identify all outstanding and approved WPCNs that must be included with the work procedures.

4.6 Material Data Sheet (MDS) - The Material Data Sheets will be used by Construction Engineering in order to identify all Quality Level I and II permanent equipment and materials that are associated with a specific work procedure. The material data sheets will also be used by the Surface and Underground Construction Department staff and Surface Drilling Department staff to document their verification that the specified permanent equipment and materials have been installed. The MDS will assist in providing traceability for Quality Level I and II items, and will be included in the appendix to the work procedure.

4.7 Supporting Information (SI) - The Supporting Information is all of the WP information included in Work Procedure Sections 1.0, 2.0, 3.0, 4.0, 5.0, 7.0, 8.0, 9.0, and 10.0. The "Work Procedure Supporting Information" form (Exhibit II) will be used for printing all supporting information.

DEFINITIONS (Continued)

4.8 Site Work Instruction (SWI) - The Site Work Instructions section of the WP Section 6.0 will describe the work requirements, the sequence of work in the order it is usually accomplished, the identified inspection hold and witness points, construction equipment, construction aids, precautions, and other factors that must be considered during the construction or drilling process. The "Work Procedure Site Work Instruction" form (Exhibit III) will be used for printing all site work instructions. When it is necessary to list a mandatory sequence of operations, it will be so stated in the WP.

5.0 RESPONSIBILITIES

5.1 Construction Department Manager (CDM) - The Construction Department Manager is responsible for ensuring that work procedures for Quality Level I and II construction activities are prepared, issued and controlled in accordance with this procedure. The CDM is responsible for the overall coordination regarding the preparation, revision, and control of all work procedures that are required by the YMP Division.

5.2 Drilling Department Manager (DDM) - The Drilling Department Manager is responsible for ensuring that work procedures for Quality Level I and II Drilling related activities are prepared, issued and controlled in accordance with this procedure.

5.3 Project Engineer (PE) - The Project Engineer, under the direction of the Construction Department Manager, is responsible for overseeing the preparation and the revision of work procedures. The PE will oversee the identification of all required work procedures, schedule their preparation, and identify the responsible person (RP) who will be responsible for preparation of a specific work procedure. The PE will coordinate with responsible REECo/YMP and/or supplier personnel in order to assure that work procedures are prepared, issued and controlled in accordance with this procedure. The PE will be responsible for assuring that the WP is prepared in accordance with the approved for construction drawings, specifications, mining programs, drilling programs, test plans, outstanding changes and good construction practice.

5.4 Project Manager Surface and Underground Construction (PMC) - The Project Manager Surface and Underground Construction under the direction of the Construction Department Manager is responsible for the maintenance of all work procedures associated with the construction of the ESF surface facilities and utilities, the shafts and underground development. The PMC is also responsible for ensuring that the work procedure instructions are implemented and that the required changes to the work procedures are made and approved prior to doing the work. The PMC, or designee, will be responsible for signing off on each numbered step, in the construction release column, of the work procedure Site Work Instruction.

RESPONSIBILITIES (Continued)

5.5 Project Manager Drilling (PMD) - The Project Manager Drilling, under the direction of the Drilling Department Manager, is responsible for the maintenance of all work procedures associated with the surface-based drilling and testing activities. The PMD is also responsible for ensuring that the work procedure instructions are implemented and that the required changes to the work procedures are made and approved prior to doing the work. The PMD, or designee, will be responsible for signing off on each numbered step, in the construction release column, of the work procedure Site Work Instruction.

5.6 Project Quality Assurance Manager (PQAM) - The Project Quality Assurance Manager is responsible for assuring that the quality requirement of applicable codes, standards and other required documents are included in a work procedure. The PQAM is responsible for assuring that required inspection Hold Points and Witness Points are identified to verify that the work process has been implemented in accordance with the work procedure instructions. The PQAM is responsible for assuring that the review of completed work procedures is completed in accordance with QP-5.0.

5.7 Responsible Person (RP) - The Responsible Person, under the direction of the Project Engineer, is responsible for the overall preparation of a work procedure, the WP review and approval process and future changes to the approved WP. The RP is responsible for identifying/preparing/obtaining all of the required drawings, specifications, test plans, and other data that is required for the preparation of a WP. The RP is responsible for coordinating with other persons such as construction and drilling supervision and various suppliers who will have input into the preparation of a WP. As principal author of a WP, the RP is responsible for coordinating the review, comment resolution and WP approval process, as well as revising the WP as required by subsequent changes.

5.8 REECo/YMP Suppliers/Subcontractors - The REECo/YMP Suppliers/ Subcontractors who are required to prepare work procedures or WPCNs, are considered the RP and must approve their work procedures prior to submittal to REECo/YMP for review and approval. They are also responsible for resolving any comments to their work procedures resulting from outside reviews and making the necessary WP changes. The PE will assign a RP to coordinate and assist the suppliers and subcontractors during the preparation of a work procedure.

6.0 PROCEDURES

6.1 Preplanning for Work Procedures

6.1.1 The Project Engineer, or designee, is responsible for identifying all required work procedures for Quality Level I and II construction and establishing a list. The list will include the WP number, title, and date it must be complete and approved for use. The PE will develop a WP preparation schedule that will include the name of the RP responsible for the preparation of each WP.

(PE)

PROCEDURES (Continued)

6.2 Preparation of Work Procedures

6.2.1 The responsible person (RP) will assemble and review all available technical information that must be considered during the preparation of the WP. The RP will determine if there is sufficient information available to prepare a WP of adequate detail, to assure that all required REECo/YMP Division program requirements will be addressed during the construction and/or drilling activity. If additional information is required, it will be coordinated through the PE.

6.2.2 The RP will, as required, assemble a team of people who have substantial construction and/or drilling experience in the area of work addressed by the work procedure. The team may include a consultant(s) (ie: blasting, seismic testing, drilling, etc.). The RP, with the possible assistance of team members, will then prepare a WP that meets the requirements of the approved for construction drawings, specifications, drilling programs, mining programs, test plans, good construction practice, safety, and any other factors that must be considered.

6.3 Numbering of Work Procedures

6.3.1 Work Procedures shall be identified with assigned numbers in the form of WP XXX where X designates the sequential number assigned to the WP.

6.3.2 Work Procedure numbers will be assigned by the Project Engineer from the WP Log. If an issued WP is cancelled, the WP Log shall indicate that it was cancelled, and that number will not be reused. The WP Log will be updated when a WP is revised.

6.4 Format of Work Procedures

6.4.1 The following is a general outline that will be used for the preparation of work procedures for construction related activities. If a work procedure section is not required, the section number and heading will remain, followed by the word "NONE".

- 1.0 <u>PURPOSE AND SCOPE</u> - State the purpose, scope, and objectives of the W.P.
- 2.0 <u>APPLICABILITY</u> - List groups, individuals, activities, or subactivities to which the procedure applies. Clearly define the limits of applicability and cite exceptions.
- 3.0 <u>DEFINITIONS</u> - Define the words and phrases that have a special meaning in the work procedure. The definitions must include terms that are consistent with REECo/YMP QAPP 568-DOC-115, as applicable.

PROCEDURES (Continued)

- 4.0 RESPONSIBILITIES - Define the areas of responsibility for each identified individual by title. Summarize each individual's responsibilities for assuring and implementing the requirements of the procedure.

- 5.0 GENERAL STATEMENTS - This section includes statements that provide general overall information regarding the work described by the work procedure, but do not provide specific step-by-step sequential directions detailing how the construction work will be accomplished.

- 6.0 SITE WORK INSTRUCTIONS - This section details the sequence of work that will be performed, and in the general order the work will be accomplished. This section will identify any prerequisites, additional criteria, hold points, witness points, precautions, equipment, and construction aids.

- 7.0 REFERENCES - This section will list all references specified in the procedure, including applicable drawings, specifications, mining programs, drilling programs, test plans, codes, standards, manuals, policies and guidelines.

- 8.0 EXHIBITS - This section will list and include copies of the required exhibits including sketches, tables, charts, forms, graphs, or other documents required for implementing the procedure.

- 9.0 QA RECORDS - This section will include a listing of the QA records generated by the implementation of the procedure.

- 10.0 APPENDICES - This section will include required additional attachments that must be included with the work procedure including material data sheets, other reports, etc.

6.5 Content of Work Procedure

6.5.1 The Work Procedure Supporting Information form (Exhibit II) will be used for the following WP sections:

- Section 1.0 PURPOSE AND SCOPE
- Section 2.0 APPLICABILITY
- Section 3.0 DEFINITIONS
- Section 4.0 RESPONSIBILITIES
- Section 5.0 GENERAL STATEMENTS
- Section 6.0 SITE WORK INSTRUCEIONS
- Section 7.0 REFERENCES
- Section 8.0 EXHIBITS
- Section 9.0 QA RECORDS
- Section 10.0 APPENDICES

PROCEDURES (Continued)

6.5.2 Each of the WP sections listed above will begin on a new Work Procedure supporting Information form . The Supporting information number (SI) is the section, subheading or sub-subheading number (i.e., 4.1.2, 4.1.3, 4.1.3.1, etc.).

6.5.2 The Site Work Instructions (SWI) describe the sequence of work that must be performed for a given construction activity. The SWI will be printed on the "Work Procedure Site Work Instructions" form (Exhibit III). The SWI section of the WP will include, as references, documents such as drawings, specifications, other procedures, etc., that contain work directing information and/or will be used as a source of acceptance criteria. When a reference is made in the SWI, the SWI section will provide a space for the revision level of the referenced document at the time the work activity is completed. The entry of the revision level shall be made by the organization/ department utilizing the referenced information. All documents referenced in the SWI must be listed in the "References" section of the WP.

6.5.2.1 The SWIs must be sequenced in the order in which the construction activity will be accomplished unless field conditions dictate otherwise. The SWIs will reflect good, safe, and economical construction practices. The SWIs will be written in sufficient detail so that the work, as defined by the Approved For Construction (AFC) drawings and specifications, can be successfully accomplished. The SWIs will include space for data entry as required. When it is necessary to list a mandatory sequence of operations, it will be so stated in the WP.

6.5.2.2 When a SWI step must be completed before continuing with the next SWI step or sequence of work, the RP will establish the SWI step as a hold point (HP). When a HP is established, the SWI will identify all activities that must be completed before continuing with the next step of work. The RP must coordinate the placement of HPs in the SWI with the Construction Engineering, Construction and Quality Assurance departments. The organization establishing the HP will be responsible for signing off on each HP when the work step is completed. In addition, the HPs will be signed off by a representative of the REECo/YMP Construction or Drilling Department and the QA Department.

6.5.2.3 If Hold Points are established by organizations other than REECo/YMP (i.e, the A/E's and National Labs), a HP identifier will indicate who the outside organization is. All HPs will include an identifier indicating the department or organization that established the HP so they can be contacted for sign off. When a HP is established by an organization outside of REECo/YMP, then a REECo/YMP QA HP will be included with the same SWI step.

PROCEDURES (Continued)

6.5.2.4 The following are examples of hold point identifiers that will, as required, be included with a SWI:

- HP-CON - REECo/YMP Construction Department Hold Point
- HP-DRL - REECo/YMP Drilling Department Hold Point
- HP-ENG - REECo/YMP Construction Engineering Department Hold Point
- HP-QA - REECo/YMP Quality Assurance Department Hold Point
- HP-QC - REECo/YMP Quality Control Department Hold Point
- HP-IC - T&MSS Hold Point
- HP-FS - Fenix & Scisson, Inc., A/E Hold Point
- HP-HN - Holmes & Narver, Inc., A/E Hold Point
- HP-LA - Los Alamos National Lab Hold Point
- HP-SN - Sandia National Lab Hold Point
- HP-LL - Lawrence Livermore National Lab Hold Point
- HP-GS - USGS Hold Point

6.5.2.5 When a Witness Point (WTP) must be included with a SWI step, the RP will be responsible for making sure the WTP and identifier is included in the SWI. The WTPs will primarily be identified by the A/E's and will be called out in the specifications. The RP will coordinate the placement of WTPs in the SWI with the Construction Engineering, Construction, and Quality Assurance Departments. Upon completion, the WTPs will be signed off by the REECo/YMP Construction or Drilling and Quality Assurance Departments. The WTPs will also be signed off by the organization establishing the WTP, if other than REECo/YMP.

6.5.2.6 Witness Point identifiers will be the same as required for Hold Points, as described in paragraph 6.5.2.4, except WTP will be substituted for HP.

6.5.2.7 The RP will generate, or have prepared by others, Material Data Sheets (MDS) in order to identify all Quality Level I and II permanent equipment and material that will be installed as required by the WP drawings, specifications, test plans, etc. The material Data Sheets will be included as an appendix to the WP. (See Exhibit VI.)

6.5.2.8 All required attachments to the WP (forms, MDS, etc.) will be listed in the WP Exhibits and Appendices Sections. When the WP is routed for review/comment/approval, all attachments will be included.

6.5.2.9 Prior to the WP package being routed for review/comment/approval, the PE, or designee, working with the RP and WP preparation team members, will review the WP in order to ensure its completeness and conformance to this procedure.

PROCEDURES (Continued)

6.6 Review and Approval of Work Procedures

6.6.1 Upon completion of writing, the draft work procedure will receive a technical review for adequacy and correctness.

6.6.1.1 Reviews shall be independent and performed by individuals with expertise in the subject of the procedure and someone other than the author(s).

6.6.2 Draft procedures are identified by the fact that they are on plain white paper and not on the procedure form or they will be included on the procedure form and stamped "Preliminary Draft" or "Draft".

6.6.3 Comments on a draft work procedure will be made by marking up the procedure and submitting a document review sheet and the marked up procedure. The reason for any comment should also be provided.

6.6.3.1 Comments shall be returned to the originating organization by the date specified on the distribution letter.

6.6.4 Comments returned to the RP are incorporated or resolved by the RP. Disputes will be resolved by the RP and the reviewer, if possible. If a dispute remains, the CDM or DDM will provide a decision on the comment.

6.6.5 The Work Procedure Cover Sheet (Exhibit I) will be used for documenting WP approvals and will be attached to the front of each WP package. After the WP has been completed by the RP, it will be routed to the PE for concurrence. Then the WP will be routed for review, comments, and approval to the Safety Department, Construction Engineering Project Engineer, Project Manager Construction or Project Manager Drilling, the Construction Department Manager or the Drilling Department Manager and last by the Project Quality Assurance Manager. Copies of the WP will be delivered to all of the individuals listed above at the same time for review and comment. After all WP comments have been resolved, the RP will hand carry the WP cover sheet to the individuals responsible for approval by signature. The PQAM will approve the WP last. The following is a brief description of the WP reviewer's responsibilities:

6.6.5.1 The Safety Department will review the WP to assure that all REECo/YMP safety concerns are adequately addressed and when acceptable will sign the WP cover sheet.

6.6.5.2 The PE will review the WP for adequacy and completeness and approve by signing the cover sheet.

6.6.5.3 The PMC or PMD will review the WP in order to verify that the WP instructions can be implemented during construction or drilling. When acceptable, the WP will be approved by signing the cover sheet.

PROCEDURES (Continued)

6.6.5.4 The CDM or DDM will review the WP and, when acceptable, will approve by signing the cover sheet.

6.6.5.5 The PQAM will review the WP to assure that quality requirements have been adequately identified and that required QA/QC Hold Points and Witness Points have been included. The PQAM will be the last to approve the WP by signing the cover sheet.

6.6.6 If all or part of the WP will be implemented by a REECo/YMP supplier, the supplier will be included on the WP cover sheet under "other approvals". The PE will obtain the suppliers approval. The supplier will indicate approval by signing the WP cover sheet.

6.6.7 The PE is responsible for determining if the WP will require review/acceptance by other YMP participating organizations, such as the YMPO, T&MSS, A/E's, Nationals Labs, etc. If so, the PE will include the participating organization(s) on the cover sheet and their concurrence will be obtained. The participating organization will indicate concurrence by signing the WP cover sheet.

6.6.8 After the WP has been revised and the required approval/concurrence obtained, a reproducible master copy will be forwarded to the REECo/YMP Document Control Department for eventual controlled distribution. Document control will not make controlled distribution of the WP until directed to do so, in writing, by the CDM or DDM.

6.7 Issue and use of Work Procedures

6.7.1 The work procedures and all attachments will be issued to the field to support construction or drilling activities as controlled documents. The WP will be issued in accordance with QP 6.0. Only one copy of the WP will be issued for Site Work Instructions signatures. The uncontrolled copies of WPs can be issued for planning purposes.

6.7.2 Approved for construction (AFC) A/E drawings, specifications, test plans, mining programs, drilling programs, and changes that are referenced in the WP, will be issued separately as controlled documents in accordance with QP 6.0.

6.7.3 Project personnel, who will be directly involved in accomplishing the work described by the WP, must first be trained to the WP before executing the work.

6.7.4 It is the responsibility of either the PMC or the PMD to assure that the work is being performed using the latest revision of the controlled copy of the WP. The PMC or PMD will take whatever action is necessary in order to prevent loss or damage to controlled WPs. The PMC or PMD is responsible for the care and maintenance of the WP in the field until the work has been completed, all required signatures have been obtained on the WP and the WP has been returned to document control in accordance with section 6.9 Closure of Work Procedures.

PROCEDURES (Continued)

6.7.5 Each SWI step, hold point, or witness point will be numbered, and must be signed off upon completion by a representative of either the PMC or PMD (ie: superintendent, shift engineer, etc.). This sign-off will indicate that the construction or drilling work is ready for inspection and does not constitute an acceptance of the work. The Construction or Drilling Departments are responsible for notifying the A/E QC staff when they are ready for Title III inspection services.

6.7.6 It is the responsibility of the PMC or PMD, or designee, to assure that the Quality Level I and II permanent equipment and material that is installed, is as specified on the Material Data Sheets (MDS). These results will be documented on the MDS.

6.8 Work Procedure Changes and Change Notices

6.8.1 When a change must be made to an approved WP, the RP will coordinate with all affected parties in order to determine the full extent of the change and to evaluate if the WP itself should be revised or if a Work Procedure Change Notice (WPCN), Exhibit IV should be prepared.

6.8.2 If, as a result of processing a WPCN, it is determined by the RP that a Change Request (CR) is required, the Construction Engineering Department will initiate a CR. The CR will be processed in accordance with QP 3.2. The change described by the proposed WPCN cannot be implemented until the CR has been formally approved and released for construction. After the CR is approved, the WPCN will be approved and issued in accordance with QP 6.0.

6.8.3 When approved CR's are received that were initiated by other Project Participants, Construction Engineering will evaluate the CR to determine if a WPCN or revision to the WP is required. If a WPCN is required, it will be prepared and issued for approval by the RP. When approved, the WPCN will be issued in accordance with QP 6.0.

6.8.4 If an evaluation of a proposed WPCN by the RP indicates that the WP change will not require a CR to be processed, then the RP will issue the WPCN for review and approval. The approved WPCN will be issued in accordance with QP 6.0.

6.8.5 Before a WPCN can be issued for construction, it must be reviewed and approved in accordance with section 6.6.

6.8.6 Approved WPCNs will be issued as controlled documents in accordance with QP 6.0. The original signed copy of the WPCN will be retained in the REECo/YMP Document Control files.

PROCEDURES (Continued)

6.8.7 When it is necessary to make a revision to the WP document itself, the revision will be coordinated through the RP. At the time the WP is revised, all outstanding WPCNs that are incorporated into the revised WP will be referenced on the Work Procedure Change Status Log, Exhibit V. The review and approval process for the revised WP will be in accordance with section 6.6. Issuance of the revised WP will be in accordance with QP 6.0.

6.9 Closure of Work Procedures

6.9.1 The closure of WPs shall be accomplished by the use of Hold Points identified by REECo/YMP in the SWI section of the WP. When the work has been completed, the responsible superintendent (operations, shaft, drilling, etc.), or designee, and Subcontractor (if applicable) will sign off on their Hold Points for WP closure. The QA department will then review the WP document in order to verify that all QA requirements have been complied with, such as assuring that applicable drawing and specification revisions, WPCNs, and CRs have been listed. A REECo/YMP QA Representative will then sign off on a QA Hold Point, and forward the WP to the PQAM.

6.9.2 The PQAM will review the WP package and, if it is acceptable, sign the cover sheet and forward to either the PMC or PMD as applicable. Either the PMC or PMD will review the WP package and, if acceptable, sign the cover sheet and transmit the WP package back to Quality Assurance.

6.9.3 The QA Department will then process the completed WP package in accordance with QP 17.0.

7.0 QA RECORDS

7.1 The entire Work Procedure, including the cover sheet, supporting information, Site Work Instructions, Work Procedure Change Notice, Change Status Log, Material Data Sheets, Exhibits, and Appendices will be considered as QA Records after processing in accordance with QP 17.0.

8.0 EXHIBITS

8.1 Work Procedure Cover Sheet, Exhibit I.

8.2 Work Procedure Supporting Information, Exhibit II.

8.3 Work Procedure Site Work Instructions. Exhibit III.

8.4 Work Procedure Change Notice, Exhibit IV.

8.5 Work Procedure Change Status Log, Exhibit V.

8.6 Work Procedure Material Data Sheet, Exhibit VI.

Exhibit I
Work Procedure Cover Sheet
Page 1 of 3

Reynolds Electrical & Engineering Co., Inc. YUCCA MOUNTAIN PROJECT WORK PROCEDURE COVER SHEET	Non Q-LIST (4) QUALITY LEVEL 1 2 (5)	WORK PROCEDURE NO (1) REV. (2) ISSUE DATE (3) PAGE (5) OF

WORK PACKAGE TITLE/DESCRIPTION:

(7)

SAMPLE

PREPARED BY: (8)			CONCURRENCE: (9)			
REECo/YMP APPROVALS (10)			(11) OTHER APPROVALS			
APPROVED BY	SIGNATURE	DATE	ORGANIZ.	TITLE	SIGNATURE	DATE
CDM or DDM circle one	(10A)	(10B)	(11A)	(11B)	(11C)	(11D)
PME or PMD circle one						
PE						
POAM			(12) WORK PROCEDURE CLOSURE REVIEW			
SAFETY			TITLE	SIGNATURE		DATE
			PMCOPMD circle one	(12B)		(12C)
			POAM			
			(12A)			

Exhibit I
Work Procedure Cover Sheet
Instructions
Page 2 of 3

Instruction Number	Description
1.	Enter the Work Procedure number. Coordinate with Construction Engineering in regards to this number.
2.	Enter the Revision Number (Rev.) of the Work Procedure.
3.	Enter the date the Work Procedure is issued for implementation.
4.	Check the correct box, Q-List or Non-Q List.
5.	Check the box, Level 1 or 2, to indicate the Quality Level.
6.	Enter the actual page number (1) and total number of pages in the WP i.e., Page 1 of 5.
7.	Enter the appropriate Work Procedure Title/Description after coordinating with Construction Engineering.
8.	Enter, by printing the name of the Responsible Person that prepared the WP.
9.	Enter, by signature, the name of the REECo/YMP Project Engineer indicating REECo/YMP concurrence.
10.	REECo/YMP approvals. A. Enter the approval by signature of each REECo/YMP approving authority. B. Date REECo/YMP approving authority concurred and signed Work Procedure.
11.	Other Approvals A. Enter initials of "Other" approving authorities organization. B. Enter initials of "Other" approving authorities representatives title. C. Enter the signature of the "Other" approving authorities representative. D. Enter the date of the "Other" approving authorities signature/concurrence.

Exhibit I
Work Procedure Cover Sheet
Instructions (Cont.)
Page 3 of 3

12. Work Procedure Closure Review

A. Enter the title of the REECo/YMP representative responsible for closure of the Work Procedure.
B. Enter the signature of the REECo/YMP representative responsible for closure of the Work Procedure.
C. Enter the date the REECo/YMP representatives signs and concurs that the Work Procedure is closed.

Exhibit II
Work Procedure Supporting Information
Page 1 of 2

Reynolds Electrical & Engineering Co., Inc. YUCCA MOUNTAIN PROJECT WORK PROCEDURE SUPPORTING INFORMATION	QUALITY LEVEL ☐ 1 - LIST ☐ NON 1 - LIST ☐ 2 (4) (5)	WORK PROCEDURE NO. (1)	
		REV. (2)	ISSUE DATE (3)
		PAGE (6) OF	

S.I. NO.	SECTION TITLE (7)	SECTION NO. (8)
(9)	(10)	

SAMPLE

Exhibit II
Work Procedure Supporting Information
Instructions
Page 2 of 2

Instruction Number	Description
1.	Enter the Work Procedure number after coordinating with Construction Engineering in regards to this number.
2.	Enter the Revision Number (Rev.) of the Work Procedure.
3.	Enter the date the Work Procedure is issued for implementation.
4.	Check the correct box, Q-List or Non Q-List.
5.	Check the correct box, Level 1 or 2 to indicate the Quality Level.
6.	Enter the actual page number (1) and total number of pages in the Work Procedure Supporting Information, i.e., page 1 of 3.
7.	Enter the appropriate Work Procedure Section Title after coordinating with Construction Engineering.
8.	Enter the appropriate Work Procedure Section Number after coordinating with Construction Engineering, (i.e.: Section 4.0, RESPONSIBILITIES).
9.	Enter the number of the Supporting Information paragraph. This number is a subset of the section number, i.e.: 4.1.2, 4.1.3, etc. Each paragraph is numbered.
10.	Write the narrative for each Work Procedure Supporting Information Paragraph.

Exhibit III
Work Procedure Site Work Instructions
Page 1 or 2

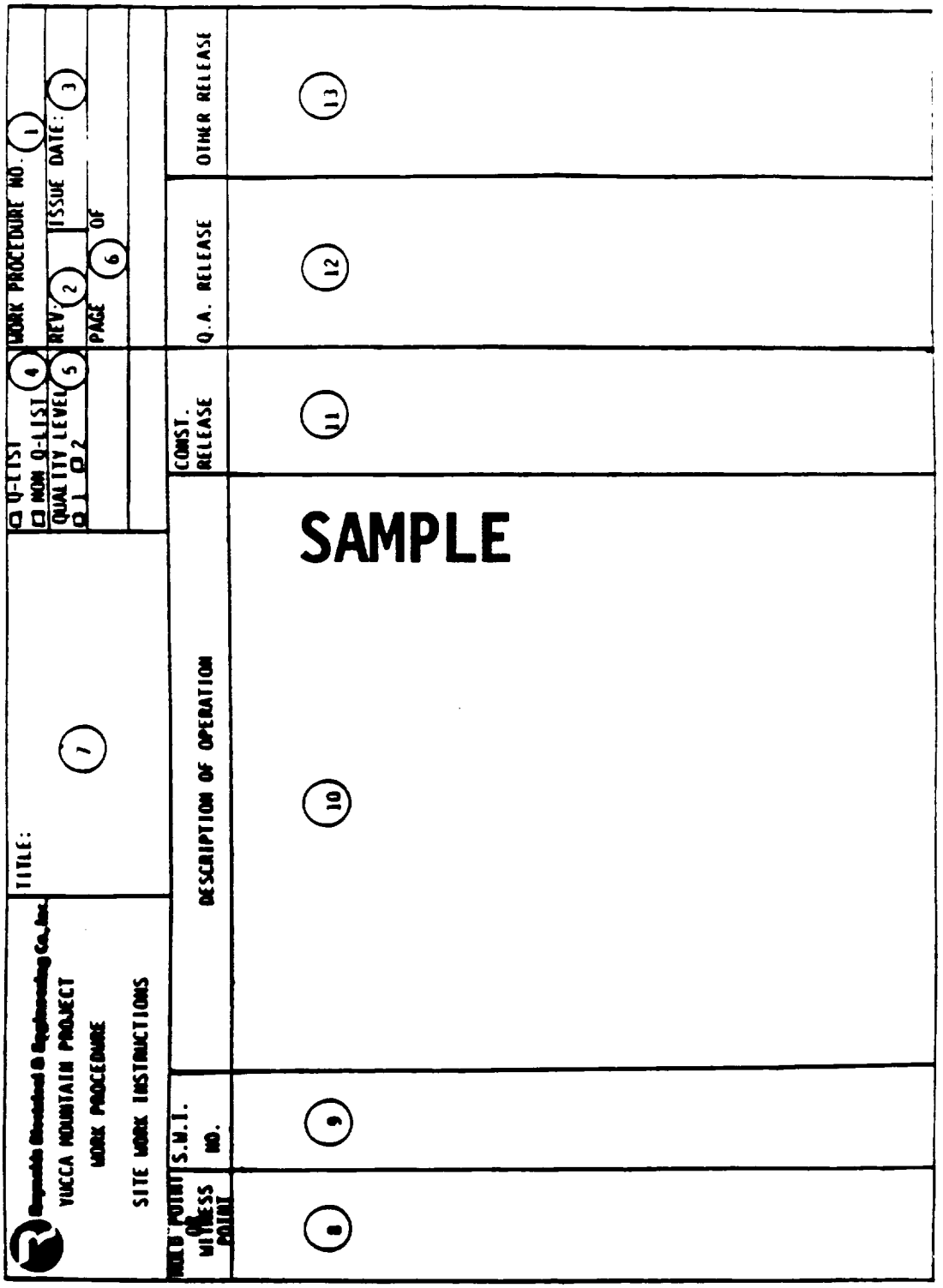

Exhibit III
Work Procedure Site Work Instructions
Instructions
Page 2 of 2

Instruction Number	Description
1.	Enter the Work Procedure number after coordinating with Construction Engineering in regards to this number.
2.	Enter the Revision Number (Rev.) of the Work Procedure.
3.	Enter the date the Work Procedure is issued for implementation.
4.	Check the correct box, Q-List or Non Q-List.
5.	Check the correct box, Level 1 or 2 to indicate the Quality Level.
6.	Enter the actual page number and total number of pages in the Work Procedure Site Work Instructions.
7.	Enter the Title of the Work Procedure after coordinating with Construction Engineering in regards to the Title.
8.	Enter the Hold Point or the Witness Point identifier.
9.	Enter the Site Work Instructions (SWI) number. An SWI number will be provided for each major step in the construction process.
10.	Describe the construction/work activity in the sequence in which it will be accomplished.
11.	When the Site Work Instructions numbered, activity is completed, obtain the appropriate Construction signature for release.
12.	When the Site Work Instructions numbered activity is completed, obtain the appropriate Quality Assurance Department signature for release.
13.	When a Hold Point is indicated, obtain the appropriate signature for release.

Exhibit IV
Work Procedure Change Notice
Page 1 of 3

Reynolds Electrical & Engineering Co., Inc. YUCCA MOUNTAIN PROJECT WORK PROCEDURE CHANGE NOTICE	WORK PROCEDURE NO. (4)	REV (5)	DATE (3)
	CHANGE NOTICE NO. (2)	PAGE (6) OF	
	TITLE OF WPCN (1)		

PAGE	DESCRIPTION OF CHANGE
(10)	(11)

SAMPLE

REFERENCE: (9)

REECo/YMP APPROVALS			(8) OTHER APPROVALS			
TITLE	SIGNATURE	DATE	ORG	TITLE	SIGNATURE	DATE
PREP. BY	(7)	(7)	(8A)	(8B)	(8C)	(8D)
~~CONSTPOOM~~ CircleOne						
~~PMCorPMD~~ CircleOne						
PE						
POAM						
SAFETY						

Exhibit IV
Work Procedure Change Notice
Continuation Sheet
Page 2 of 3

Reynolds Electrical & Engineering Co., Inc. YUCCA MOUNTAIN PROJECT WORK PROCEDURE CHANGE NOTICE CONTINUATION	WORK PROCEDURE NO. (4)	REV. (6)	
	CHANGE NOTICE NO. (2)	REV. (5)	DATE (3)
	TITLE (1)		
REFERENCE (9)			

PAGE NO.	DESCRIPTION
(10)	(11)

SAMPLE

Exhibit IV
Work Procedure Change Notice
Instructions
Page 3 of 3

Instruction Number	Description
*1.	Enter Work Procedure Change Notice (WPCN) Title, after coordinating with Construction Engineering.
*2.	Enter the WPCN Number after coordinating with Construction Engineering.
*3.	Enter the date the WPCN was written.
*4.	Enter the applicable Work Procedure number.
*5.	Enter the revision of the Work Procedure number
*6.	Enter the actual page number (1) and total number of pages in the WPCN, i.e., Page 1 of 5.
7.	Enter the Signature and dates of the REECo/YMP WPCN approving authorities.
8.	Other A. Enter the initials of the "Other" approving authorities organizations. B. Enter the title of the "Other" approving authorities representatives. C. Enter the signature of the "Other" approving authorities representatives. D. Enter the date of the "Other" approving authorities signature/concurrence.
*9.	Enter the Change Request (CR) that corresponds to the WPCN, enter N/A if a CR did not facilitate the change.
*10.	Enter the Work Procedure page number and paragraph associated with each change listed.
*11.	Enter the Paragraph and description of the required change.

*NOTE: Items marked with an (*) are to be filled in as described on the "WPCN Continuation Sheet" if one is required.

Exhibit V
Work Procedure Change Status Log
Page 1 of 2

Reynolds Electrical & Engineering Co., Inc. YUCCA MOUNTAIN PROJECT WORK PROCEDURE CHANGE STATUS LOG	☐ Q-LIST ☐ NON Q-LIST (4) QUALITY LEVEL (5) ☐ 1 ☐ 2	WORK PROCEDURE NO. REV. (2) ISSUE DATE (3) PAGE (6) OF

WPCN CHANGE STATUS

(7)

SAMPLE

Exhibit V
Work Procedure Change Status Log
Instructions
Page 2 of 2

Instruction Number	Description
1.	Enter the Work Procedure number after coordinating with Construction Engineering.
2.	Enter the Revision Number (Rev.) of the Work Procedure.
3.	Enter the date the Work Procedure is issued for implementation (Issue Date).
4.	Enter an "X" in the correct box, Q-List or Non-Q-List.
5.	Enter an "X" in the correct box, to indicate the Quality Level.
6.	Enter the actual page number (1) and total number of pages in the WP, i.e., Page 1 of 5.
7.	Enter the Work Procedure Change Notices and dates that have been incorporated or attached to the WP along with any appropriate remarks.

Exhibit VI
Material Data Sheet
Page 1 of 2

Reynolds Electrical & Engineering Co., Inc.	WORK PROCEDURE NO. (2)	PAGE (5) OF
YUCCA MOUNTAIN PROJECT		REV. (3) DATE (4)
MATERIAL DATA SHEET	WORK PROCEDURE TITLE (1)	

ITEM/PIECE REECO No.	DESCRIPTION	MATERIAL ID NO.	CONS. / CRL NO VERIFY	REMARKS
(6)	(7)	(8)	(9)	(10)

SAMPLE

Exhibit VI
Material Data Sheet
Instructions
Page 2 of 2

Instruction Number	Description
1.	Enter the work procedure title.
2.	Enter the work procedure number.
3.	Enter the work procedure latest revision number.
4.	Enter the date the material data sheet was completed.
5.	Enter the number of the MDS sheet and the total number of MDS sheets associated with the work procedure.
6.	Enter the REECo item or piece number applicable to each item listed.
7.	Enter a brief description of the item.
8.	Enter the material identification number for each item listed.
9.	Enter the signature or the initials of the REECo/YMP Construction or Drilling Department representative responsible for verifying the equipment or material installed.
10.	Enter remarks.

Reynolds Electrical & Engineering Co., Inc.	TITLE PREPARATION, REVIEW AND APPROVAL OF IMPLEMENTING PROCEDURES	NO. QP 5.3
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QUALITY PROCEDURE	R F Pritchett	DATE 5-26-89
	Technical Project Officer	DIST.

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1.0 PURPOSE AND SCOPE

1.1 This procedure defines the requirements and responsibilities for the preparation, revision, review, approval, and issue of Implementing Procedures, for the REECo/Yucca Mountain Project (YMP). It further provides for the uniform formatting and control of changes for implementing procedures.

1.2 The purpose of an Implementing Procedure is to provide direction for department peculiar activities which are not addressed in quality procedures. Where Project Quality Procedures provide sufficient direction for implementing program requirements additional Implementing Procedures shall not be required.

2.0 APPLICABILITY

2.1 This procedure applies to all personnel who develop Implementing Procedures which are written for directing and accomplishing Quality Level I and II activities for the Yucca Mountain Project. This procedure does not apply to procedures directing construction work activities.

3.0 REFERENCES

3.1 REECo Quality Assurance Program Plan, (QAPP) 568-DOC-115, for the Yucca Mountain Project.

3.2 QP 5.0, Instructions, Procedures, and Drawings.

3.3 QP 5.1, Preparation, Review and Approval of Quality Procedures.

3.4 QP 6.0, Document Control

3.5 QP 17.0, Quality Assurance Records.

4.0 DEFINITIONS

4.1 Implementing Procedure - Procedures which are a set of written instructions which specifies or describes the sequence of events to be performed in accomplishing a specific task or activity.

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DEFINITIONS (Continued)

4.2 Implementing Procedure Change Notice (IPCN) - The Implementing Procedure Change Notice is a form used to notify implementing procedure holders of changes and to expedite changes to procedures without the procedure having to be formally revised.

4.3 Appendix A, Terms and Definitions, of QAPP 568-DOC-115, contains general definitions.

5.0 RESPONSIBILITIES

5.1 Department Managers - Department Managers are responsible for developing and approving implementing procedures for activities performed by their department which accomplish work activities on the YMP.

5.2 Project Quality Assurance Manager (PQAM) - The Project Quality Assurance Manager is responsible for review and approval of implementing procedures.

5.3 Responsible Person - The Responsible Person, under the direction of the Department Manager, is responsible for the overall preparation, review and approval process, and coordinating of changes, for the implementing procedures they author.

6.0 PROCEDURE

6.1 Preparation of Implementing Procedures

6.1.1 The department manager shall assign a responsible person to prepare an implementing procedure for work activities when no procedure exists,

6.1.1.1 Any individual recogniznig the need for an implementing procedure will send a request along with a substantiation of the need to the appropriate Department Manager for development per paragraph 6.1.

6.1.2 The responsible person shall prepare the implementing procedure in accordance with this procedure and assure that it contains or references all applicable technical information related to the activity.

6.1.3 Procedures shall be identified by an assigned numbering system, established by the department manager, that includes the alpha characters "IP" to designate it as an Implementing Procedure and provide for a revision status indicator.

6.1.4 Procedures and their revisions shall be logged and tracked on a procedures index by the department manager to assure their current status. Cancelled procedure numbers shall not be reused.

PROCEDURES (Continued)

6.2 Format of Implementing Procedures

6.2.1 The following format outlines the standard format and content of Implementing Procedures and shall be the same as provided by this procedure.

6.2.2 If a procedure section is not required for the activity, the section number and heading will remain, noted by the word "NONE".

6.2.2.1 Section 1.0 **PURPOSE AND SCOPE** - Describe the objectives of the procedure, being as specific as possible. Do not generalize. As part of the scope portion, briefly specify what actions prescribed by the procedure will include, i.e., responsibilities, requirements, documentation, etc. The responsible person shall assure that only what is stated in this section is addressed in the body of the procedure.

6.2.2.2 Section 2.0 **APPLICABILITY** - List groups, individuals, activities, or subactivities to which the procedure applies. Clearly define the limits of applicability and cite exceptions.

6.2.2.3 Section 3.0 **REFERENCES** - Identify pertinent documents or procedures that interface or are directly applicable to the procedure being prepared. Include applicable codes, standards, manuals, policies, guidelines, procedures and documents referenced in the body of the procedure.

6.2.2.4 Section 4.0 **DEFINITIONS** - Define words and phrases having a special meaning in the procedure and which do not have a common usage. The definitions must include terms that are consistent with the REECo/YMP QAPP 586-DOC-115.

6.2.2.5 Section 5.0 **RESPONSIBILITIES** - Identify the key individuals/ organizations by title, and summarize their responsibilities for assuring compliance and/or implementing the procedure.

6.2.2.6 Section 6.0 **PROCEDURE** - This section explains the step-by-step sequence of how a task or activity is accomplished, and in the general order the work will be performed. The context of each step shall be specific and shall provide for smooth flow from one step to the next. If the process is complicated, use a flow diagram to display the process. Describe the records required, the schedule and the checklist to be followed. Ensure that the procedure conforms to applicable codes, standards, regulations and approved procedures.

6.2.2.7 Section 7.0 **QA RECORDS** - Identify the specific documents generated by the implementation of the procedure that are to become QA Records.

PROCEDURES (Continued)

6.2.2.8 Section 8.0 **EXHIBITS** - List and provide examples of forms required for implementing the procedure. Numbering of the form shall be by roman numerals, i.e., Exhibit I, Exhibit II. If the form is complex, include instructions for its completion.

6.2.3 Each procedure section and subsections shall be structured as follows:

1.0 Section
1.1 Subsection
1.1.1 Sub-subsection
1.1.1.1 Sub-sub-subsection

6.2.4 "NOTES" and bullets (°) may be used to denote items of importance and items of sequence.

6.3 Content of Implementing Procedures

6.3.1 Procedures which describe requirements for activities to be performed shall be prepared. These requirements shall be determined by the QAPP, 568-DOC-115, contract, specifications, codes, standards, and other programmatic documents.

6.3.2 Procedures shall identify, as applicable, the items, materials, activities or processes required to accomplish the task described.

6.3.3 Procedures shall provide for required inspection, control, or verification activity as applicable.

6.3.4 The department developing the procedure shall assure that the procedure does not conflict with existing procedures and, if so, that such conflicts are resolved.

6.3.5 Procedures shall provide a means of documenting the results of required activities and shall include any applicable inspections, verifications, and examinations.

6.3.6 Documentation generated as a result of the procedure shall include appropriate, and sufficient qualitative and quantitative acceptance criteria to assure compliance with specified requirements.

6.4 Review, Approval and Issue of Implementing Procedures

6.4.1 Upon completion of writing the draft procedure, the department manager shall provide for a review of the draft procedure for technical adequacy and correctness.

6.4.1.1 Reviews shall be independent and performed by individuals with expertise in the subject of the procedure and someone other than the author.

PROCEDURES (Continued)

6.4.1.2 Draft procedures are identified by the fact that they are on plain white paper and not on the procedure form or stamped "Preliminary Draft" or "Draft".

6.4.2 The department manager shall submit the procedure in draft form to the PQAM for review.

6.4.3 Comments on a draft procedure will be made by marking up the procedure and documenting the comments on a Document Review Sheet, Exhibit I. The reason for any comment should also be provided.

6.4.3.1 Comments shall be returned to the department manager by the due date specified.

6.4.4 Comments are returned to the responsible person who shall incorporate them into the procedure or resolve them if possible. Where a dispute exists which cannot be resolved, the department manager and PQAM will provide a resolution.

6.4.5 After resolution of all comments, the procedure is prepared in final form by the responsible person who shall obtain final review and approval from the department manager and the PQAM.

6.4.6 When the procedure has been approved, the department manager shall issue the Implementing Procedure, to those having a need, as a controlled document in accordance with QP 6.0

6.4.7 PQA shall make additional distribution of implementing procedures and their changes to the YMPO PQM and the SAIC/T&MSS Project QA Department Manager.

6.4.8 Personnel involved in accomplishing work delineated by the Implementing Procedure shall be trained before executing the work described.

6.4.9 The department manager shall assure that the work being performed is accomplished using the latest revision of the controlled copy of the Implementing Procedure.

6.5 Revision of Implementing Procedures

6.5.1 Individuals identifying the need for an Implementing Procedure to be revised shall submit to the department manager the pro-posed revision on a Implementing Procedure Change Notice (IPCN), Exhibit II.

6.5.1.1 IPCN's shall be logged and tracked on the Implementing Procedure Change Notice Log, Exhibit III.

PROCEDURES (Continued)

6.5.1.2 IPCN Numbering shall take the form of, IPCN-XX.X-Y-Z, where IPCN designates the change notice for an implementing procedure, "XX.X" designates the procedure number, "Y" designates the procedure revision, and "Z" is the consecutive number of the change notice, e.g., IPCN-10.1-4-5.

6.5.2 The IPCN shall be reviewed by the department manager and, if required by the significance/extent, a draft procedure incorporating the proposed revision will be developed.

6.5.2.1 Otherwise the IPCN shall be reviewed and approved in accordance with paragraph 6.4.

6.5.2.2 The purpose of the IPCN shall be to notify procedure holders of a revision to the procedure without the procedure having to be formally revised.

6.5.2.3 When there are five (5) IPCNs outstanding against a given procedure, it shall be formally revised, in accordance with paragraph 6.5.3 thru 6.5.6, incorporating all IPCNs and any other changes found to be required.

6.5.2.4 Procedures shall be reviewed for possible revision at least annually as a minimum.

6.5.3 Procedures requiring revision shall be reviewed by the department manager and, if required, a draft procedure incorporating the proposed revision will be developed.

6.5.4 Procedures, indicating the proposed revisions shall be subjected to the same process for preparation, review and approval as the original.

6.5.5 Revisions or changes shall be indicated by sidelining the right side of the page beside the changes. Only current changes need be identified.

6.5.6 Other procedures affected by the revision of an IP shall be revised accordingly.

7.0 QA RECORDS

7.1 Procedures and their revisions, the Procedures Index, Implementing Procedure Change Notices and Implementing Procedure Change Notice Logs, generated by the implementation of this procedure are QA Records and shall be handled in accordance with QP 17.0.

PROCEDURE (Continued)

8.0 **EXHIBITS**

8.1 Document Review Record, Exhibit I

8.2 Implementing Procedure Change Notice, Exhibit II.

8.3 Implementing Procedure Change Notice Log, Exhibit III.

Exhibit I
Document Review Record

Reynolds Electrical & Engineering Co., Inc.

YUCCA MOUNTAIN PROJECT

DOCUMENT REVIEW RECORD

Document Reviewed _____
(Title, Number, and Revision)

Review Requirement Reference (QAPP, QP, etc.) _____

Satisfactory _____ Unsatisfactory _____

Reviewer _____ Date _____

Comments: (If additional space is required, use continuation sheet)

Exhibit II
Implementing Procedure Change Notice

(REECo LOGO) YUCCA MOUNTAIN PROJECT IMPLEMENTING PROCEDURE CHANGE NOTICE	IPCN No.:	Date:
	Implementing Procedure No.:	Rev.:

Page	Paragraph	Description of Change
		SAMPLE

Originator:	Date:
APPROVALS	
Department Manager:	Date:
Project Quality Assurance Manager:	Date:

Exhibit III
Implementing Procedure Change Notice Log

(REECo Logo) YUCCA MOUNTAIN PROJECT
IMPLEMENTING PROCEDURE CHANGE NOTICE LOG

IPCN Number	Date of IPCN	Procedure	Brief Description of IPCN	IPCN Originator	Date Incorp. Into Procedure
			SAMPLE		

Reynolds Electrical & Engineering Co., Inc.	TITLE DOCUMENT CONTROL	NO. QP 6.0
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QUALITY PROCEDURE	127 Pritchard	DATE 5/26/89
	Technical Project Officer	DIST.

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Revision 5: This revision supersedes QP 6.0, Revision 4, 04-18-89.

1.0 PURPOSE AND SCOPE

1.1 This procedure establishes the method to be used for the control, development, issue, maintenance, and distribution of QA documents and their changes to be used at the REECo Yucca Mountain Project (REECo/YMP).

2.0 APPLICABILITY

2.1 This method shall apply to those documents that specifiy quality requirements or prescribe activities affecting quality. Document Control shall apply to all organizations, including matrix support, and suppliers performing activities affecting quality for the YMP. These controls shall apply to all documents related to QA Level I and II activities.

2.2 Documents not subject to this procedure, i.e., inspection reports, calibration records, corrective action reports, nonconformance reports, audit reports, etc., shall be controlled in accordance with the applicable procedure which generated the document and shall be handled in accordance with QP 17.0.

3.0 REFERENCES

3.1 REECo Quality Assurance Program Plan, (QAPP) 568-DOC-115, for the Yucca Mountain Project.

3.2 QP 5.0, Instructions, Procedures, and Drawings.

3.3 QP 17.0, Quality Assurance Records.

4.0 DEFINITIONS

4.1 Contract Documents - The contract or other documents specified by the contract such as codes, standards, reg. guides, specifications, etc.

APPROVED: _____ DATE 5/25/89
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PROCEDURES (Continued)

6.2 Document Identification

6.2.1 All controlled documents shall be uniquely identified such that the identification is controlled and shall contain as part of that identification the type of document, document number, date of approval, and revision number. Original issue of a document shall be designated as Revision 0.

6.2.2 Instructions, procedures, and drawings generated by departments shall be prepared, reviewed, and approved in accordance with QP 5.0.

6.3 Document Maintenance

6.3.1 Documents generated and maintained requiring controls, as defined by this procedure, shall be logged on a document control log.

6.3.2 The PQAM shall develop and maintain a master list of the project's controlled documents. This list shall identify the current revision of controlled documents issued for QA Level I and II activities.

6.3.2.1 The PQAM shall submit a copy of the master list to the YMPO Project Quality Manager and the SAIC/T&MSS Project Quality Assurance Manager as it is revised or at a minimum, annually.

6.3.3 The Document Distribution Status and Control Log (DDSCL), Exhibit 1, shall be maintained by each department and shall be used to identify each controlled document, its originator, title, ID number, issue date, date received by the organization's document control, revision, date of revision, QA level, person responsible for the document, person document transimtted to, date document transmitted, and date document transimittal record returned.

6.3.4 Each department shall maintain reproducible files of all issued controlled documents. These reproducible copies will be used to make the necessary distribution copies.

6.3.5 Documents that become superseded shall be removed from copy holders and work locations destroyed or marked "superseded" to prevent their inadvertent use.

6.3.5.1 Copies of superseded documents will be maintained, in a historical file, for reference.

6.3.6 Each department shall monitor on a semi-annual basis, those areas/ locations and individuals to which documents have been issued to assure that only the correct and current issue is available for use. This monitoring activity shall be documented.

6.3.7 Division/Department Managers shall evaluate, at least annually, the need for existing controlled document holders, to be retained on the controlled document distribution list.

PROCEDURES (Continued)

6.4.5 Revised controlled documents are transmitted to those individuals listed on the DDL, in accordance with paragraph 6.4.3.

6.5 Change Control

6.5.1 Changed documents, excluding those having minor editorial changes, shall be controlled in the same manner as the original issue of a document.

6.5.2 Minor changes to documents, including inconsequential editorial changes and deletions not affecting quality, are not subject to this procedure, but shall be incorporated into the subsequent revision.

6.5.2.1 This will ensure that all changes, both major and minor, are reviewed because the PQAM reviews and approves revisions to procedures.

7.0 QA RECORDS

7.1 Master Lists, Document Transmittal Records, Document Distribution Status and Control Logs, and all document control records generated by the implementation of this procedure shall be considered QA Records and shall be handled in accordance with QP 17.0

8.0 EXHIBITS

8.1 Document Distribution Status and Control Log, Exhibit I

8.2 Document Transmittal Record, Exhibit II

EXHIBIT II
DOCUMENT TRANSMITTAL RECORD

REYNOLDS ELECTRICAL & ENGINEERING CO., INC.

YUCCA MOUNTAIN PROJECT QA DOCUMENT CONTROL
DOCUMENT TRANSMITTAL RECORD

DATE _____

TO: _____ (Name) _____ (Dept/Organization)

FROM: _____ (Name) _____ (Dept/Organization)

DOCUMENT TITLE OR DESCRIPTION	DOCUMENT DATE	DOCUMENT NUMBER	ORIGINATOR

SAMPLE

REMARKS:

THE MATERIAL LISTED ABOVE HAS BEEN RECEIVED. SUPERSEDED DOCUMENT(S) HAVE BEEN REMOVED AND DESTROYED OR MARKED TO PREVENT INADVERTENT USE.

_____ (Name) _____ (Signature) _____ (Date)

NOTE: TO BE SIGNED BY ADDRESSEE OR DESIGNEE ONLY AND RETURNED WITHIN FIVE DAYS TO SENDER SHOWN ABOVE.

DISTRIBUTION:

1. ORIGINAL RETURNED TO SENDER.
2. RETAINED BY RECIPIENT.
3. RETAINED BY ISSUING DEPARTMENT.

Reynolds Electrical & Engineering Co., Inc.	TITLE CONTROL OF PURCHASED MATERIALS, EQUIPMENT, AND SERVICES	NO. QP 7.0
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YUCCA MOUNTAIN PROJECT	APPROVED	REV. 6
QUALITY PROCEDURE	R F Pritchett	DATE 5/26/89
	Technical Project Officer	DIST.

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Revision 6: This revision supersedes QP 7.0, Revision 5, 04-11-89.

1.0 PURPOSE AND SCOPE

1.1 This procedure describes how material, equipment, and services procured by REECo for Yucca Mountain Project (YMP), are controlled.

1.2 This procedure provides the requirements for Procurement Planning, Supplier Selection, Supplier Evaluation, Supplier Documentation, Acceptance of Items or Services, and Supplier Nonconformances.

2.0 APPLICABILITY

2.1 This procedure applies to all REECo procured QA Level I and II items and services for the YMP.

3.0 REFERENCES

3.1 REECo Quality Assurance Program Plan, (QAPP) 586-DOC-115, for the Yucca Mountain Project.

3.2 QP 4.0, Procurement Document Control

3.3 QP 6.0, Document Control.

3.4 QP 10.0, Inspection

3.5 QP 13.0, Handling, Shipping, and Storage

3.6 QP 15.0, Nonconformances

3.7 QP 17.0, Quality Assurance Records.

3.8 Buyers Handbook, BH-6221

APPROVED: Maud Fox DATE 5/25/89
PROJECT QUALITY ASSURANCE MANAGER

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PROCEDURE (Continued)

4.0 DEFINITIONS

4.1 Source Verification - The act of monitoring or observing at the supplier's facility to verify whether an item or activity conforms to specified requirements.

4.2 Supplier Qualification - The process for adding suppliers to the REECo/YMP Qualified Suppliers List (QSL) based on an evaluation of the suppliers capability to provide items or services in accordance with the requirements of the procurement documents prior to award of purchase order or subcontract.

4.3 Commercial Grade Items - Commercial grade items are not subject to design or specification requirements that are unique to Mined Geologic Disposal Systems; are used in applications other than Mined Geological Disposal; and are ordered from a manufacturer or supplier on the basis of specifications set forth in the manufacturer's published product description, i.e.,catalog.

4.4 Appendix A, Terms and Definitions, of QAPP 568-DOC-115, contains general definitions.

5.0 RESPONSIBILITIES

5.1 Project Quality Assurance Manager (PQAM) - The Project Quality Assurance Manager is responsible for reviewing all procurement documents for quality criteria, participating in supplier evaluations, quality verification of items/services received, accomplishment and reporting of supplier evaluations on an annual basis, and maintaining the Qualified Suppliers List (QSL), and providing for identification, documenting, reporting, and follow-up of discrepancies found during source verification.

5.2 Procurement Department - The Procurement Department is responsible for requesting Supplier Evaluations for Quality Assurance Level I and II procurements, coordinating and participating in procurement activities in accordance with the Buyers Handbook, BH-6221, and this procedure, and shall be responsible for the primary contact in dealing with suppliers.

5.3 Technical Review Organization - The Technical Review Organization is responsible for the technical review of procurement documents and participating in supplier evaluations as required.

5.4 Originating Organizations - Originating Organizations are responsible for submitting all purchase requisitions and supporting documentation to PQA, in a timely manner, for review and approval.

6.0 PROCEDURE

6.1 Procurement Planning

6.1.1 Procurement of QA Level I and II Items/Services

PROCEDURES (Continued)

6.1.1.1 Procurement of materials, equipment and services shall be as defined in this procedure and BH-6221. The planning of procurements shall be accomplished as early as practicable but no later than the start of those procurement activities that are required to be controlled and shall document the methods and responsibilities for each procurement. Planning shall determine the following conditions:

- What is to be accomplished.
- Who is to accomplish it.
- How it is to be accomplished.
- When it is to be accomplished.

6.1.1.2 Planning shall be provided for each procurement and involve Procurement, PQA, Engineering, and procurement originator. Preparation, review, approval and changes of procurement documents shall be accomplished in accordance with QP 4.0.

6.1.1.3 Planning shall provide for the integration of the following activities:

- Procurement document preparation, review, approval, and changes.
- Selection of Procurement Sources.
- Control of Supplier Performance.
- Procurement verification through surveillance, inspection, or audit, including hold/witness point notification.
- Control of nonconformances.
- Corrective action.
- Acceptance of item/service.
- QA Records.

6.2 Supplier Selection

6.2.1 Suppliers shall be selected based on an evaluation of their capability to provide items or services in accordance with the requirements of the procurement documents.

PROCEDURES (Continued)

6.2.2 Evaluations of bids shall be performed by Procurement, Engineering, PQA, the originating organization, and others as deemed necessary by the type of procurement.

6.2.3 Bids shall be evaluated based on the supplier's history and current capability to provide the item or service, current QA records, technical and quality requirements, personnel, implementation of the supplier's QA program, production capability, and supplier's past performance.

6.2.4 Unacceptable conditions resulting from the bid evaluation shall be resolved by Procurement. The resolutions shall be accepted by the reviewers prior to the award of the contract.

6.3 Supplier Evaluation

6.3.1 Evaluations of suppliers shall determine the extent of conformance to and provide assurance that the supplier is capable of complying with the requirements of the procurement documents and QAPP 568-DOC-115.

6.3.2 The evaluations shall be coordinated through Procurement, who shall be the interface with the Supplier in all procurement matters and shall include the following subjects:

- Technical considerations.
- QA requirements.
- Supplier's personnel.
- Supplier's past performance.
- Alternates.
- Exceptions.

6.3.3 Procurement shall initiate the request for evaluation of suppliers and formulate the evaluation team which shall consist of personnel from Procurement, Engineering, Project Quality Assurance, A-E, YMPO, and the procurement requesting organization, as required by the procurement requirements.

6.3.3.1 Personnel selected shall be qualified to check, inspect, audit, or witness suppliers activities.

6.3.3.2 PQA shall be included in all procurement activities.

6.3.4 Procurement initiates a statement of purpose, goals, and suggested agenda of activities as notification to evaluated supplier's facility and operations.

PROCEDURES (Continued)

6.3.4.1 The extent of the verification activities, including planning, shall be determined by the relative importance, complexity, and quantity of the item or service being procured.

6.3.5 Following a review of the supplier's quality program and procedures, a tour of the facility is conducted to verify implementation of the procedures.

6.3.5.1 The documented QA program may be evaluated prior to review of supplier's facility.

6.3.6 The evaluation of the supplier's documents and records shall include, but not be limited to the following:

6.3.6.1 Certificates of conformance and the procedures for completing, review and approval, as well as the effectiveness and validity of the certification system.

6.3.6.2 Nonconformance reports audits, receiving, in-process, final inspections, personnel qualifications, measuring and test equipment, and Records Management.

6.3.7 The technical capability of the supplier shall be reviewed by the A-E, user organization, and/or engineering. PQA shall assess the supplier's implementation of their QA program and procedures. Procurement shall examine the business aspects of the supplier's ability to perform, i.e., facilities, personnel, finances, etc.

6.3.8 When the team has completed their reviews and conferred jointly, a closing meeting is held with the supplier to apprise him of the team's observations and to provide him a preliminary report of the evaluation results. These may be:

- Acceptable.
- Acceptable with minor modifications.
- Unacceptable.

6.3.9 Evaluation Team shall document their results, including the basis for acceptance or rejection of the supplier.

6.3.10 Procurement shall convene a meeting of the evaluation team or their representatives, to evaluate the effectiveness of the supplier's quality program and make a final determination of the evaluation results.

6.3.11 Procurement shall formerly notify the supplier of the evaluation results.

6.3.12 Project Quality Assurance will include the supplier on the QSL and show the extent the Supplier is qualified, based on the results of the evaluation.

PROCEDURES (Continued)

6.3.13 The REECo/YMP QSL shall be issued during or prior to the first month (January) of each year by the PQAM.

6.3.13.1 The QSL shall include the following data as a minimum for each supplier:

- Supplier's full name
- Supplier's full address, (if a supplier has more than one location, show only the address of the location that was evaluated and is qualified).
- The specific item or service the supplier is qualified to supply, (supplier's scope).
- Any limitations or restrictions placed upon the supplier.
- The date of the suppliers evaluation.
- The date follow-up or re-audit of the supplier is required.
- Applicable Quality Levels.

6.3.13.2 The PQAM will update the QSL quarterly by issuing a revised QSL. QSL issues are identified by year and issue quarter, i.e., 88-1, 88-2, 88-3, etc.

6.3.13.3 During the quarter, the PQAM may add newly qualified suppliers, delete suppliers, or change supplier scopes prior to issue of the next quarter update by the use of an addenda to the QSL.

6.3.13.4 QSL addenda shall include all the data required by paragraph 6.3.12.1, and will include the QSL issue number the addenda applies to and the addenda number and date.

6.3.13.5 The QSL and addenda will be issued as a controlled documents in accordance with QP 6.0.

6.4 Supplier Performance Evaluation

6.4.1 PQA shall conduct a Supplier Performance Evaluation of all suppliers prior to the end of the supplier's contract or annually whichever comes first.

6.4.1.1 Procurement shall coordinate with DOE/YMPO in procurement matters when utilizing organizations external to REECo in, accordance with the requirements of QAPP 568-DOC-115, Section VII, Paragraph 1.4.2.1

6.4.2 Procurement shall provide the interface measures with the supplier which shall include the following actions:

PROCEDURES (Continued)

6.4.2.1 Procurement shall document the understanding between REECo and the supplier of the provisions and specifications of the procurement documents.

6.4.2.2 Procurement shall require the supplier to identify planning techniques and review supplier documents that are generated or processed during activities that fulfill procurement document requirements.

6.4.2.3 Procurement shall identify and process necessary change information.

6.4.2.4 Procurement shall establish at the time of purchase the approved method of document exchange between the purchaser and supplier.

6.4.2.5 Procurement shall assure that supplier understands that purchaser verification activities shall not relieve the supplier of his responsibilities for verification of quality achievement.

6.4.3 Supplier evaluations shall consist of an objective appraisal of the supplier's performance with special regard given to the following considerations:

- Timely delivery within the terms of the contract.
- Evaluation of supplier's conformance to QA program requirements.
- Results of source evaluations and audits.
- Supplier's inspection reports and certificates of conformance.
- Material and process certifications.
- Nonconformance reports.
- Receiving reports.
- Field performance reports and operating experience.

6.4.4 The extent of the verification activities for supplier evaluations shall be a function of the relative importance, complexity, and quantity of the item or services provided and the suppliers quality performance.

6.4.4.1 Managers responsible for assigning personnel to perform procurement verification activities shall assure that those personnel are qualified to check, inspect, audit, or witness a suppliers activities.

PROCEDURES (Continued)

6.4.4.2 Procurement shall assure that verification activities are accomplished as early as practicable in the life of the procurement.

6.4.5 All activities performed which verify a suppliers conformance to requirements of procurement documents shall be documented and shall include source surveillances and inspections, audits, receiving inspections, nonconformances, dispositions, waivers, and corrective actions.

6.4.6 Results of the annual evaluation shall document the quality of the supplier's performance, whether satisfactory or unsatisfactory, and the basis for the determination and the viability of the supplier as a continued or future procurement source of items or services.

6.4.7 Copies of the report shall be transmitted to the Procurement Department and DOE/YMP office for review and evaluation.

6.4.7.1 Reports and documents generated thru the evaluations of suppliers shall be evaluated by procurement, procurement originator and PQA to determine the effectiveness of the supplier's QA program.

NOTE: The reports and documents stated above shall be considered QA records and shall be controlled in accordance with QP 17.0.

6.4.8 PQA shall annotate the QSL to reflect the results of the supplier verification evaluation.

6.5 Supplier Documentation

6.5.1 Procurement shall ensure that the submittal of supplier documents is accomplished in accordance with the procurement document requirements and the following:

6.5.1.1 Supplier generated documents submitted to procurement shall be controlled, handled, and processed in accordance with documented procedures (see BH-6221).

6.5.1.2 Procurement shall confirm that the acquisition of supplier documents are as specified in the procurement document requirements.

6.5.1.3 Procurement shall then forward the supplier documents to PQA for review and coordination with A-E, user, and DOE/YMP as necessary.

PROCEDURES (Continued)

6.5.1.4 Supplier documents including suppliers QA program and procedures, drawings, technical inspection, and test data shall be evaluated for technical adequacy against the procurement document requirements and approved acceptance criteria.

6.5.1.5 Reviews of supplier documents shall be documented and provide an approval or disapproval and forwarded to PQA who shall return them to procurement.

6.5.2 Upon obtaining the documented reviews procurement shall formally notify the supplier.

6.5.3 Supplier changes to procurement documents shall be controlled in accordance with QP 4.0.

6.6 Acceptance of Items and Services

6.6.1 The supplier shall verify that the item or service offered for acceptance complies with the procurement document requirements prior to offering the item or service for acceptance by REECo/purchaser.

6.6.2 Methods of receipt inspection to be used for acceptance of an item or related service shall be either a supplier certificate of conformance, source verification, receipt inspection or post-installation test at the facility, as describe below or a combination.

6.6.2.1 Where a certificate of conformance is used the following shall be met as a minimum:

- The certificate shall identify the purchased material or equipment.
- The certificate shall identify the specific procurement requirements met by the purchased material or equipment, i.e., codes, standards, or other specifications, which may be accomplished by including a list of the specific requirements or by providing at the point of receipt a copy of the purchase order and the procurement specifications or drawings, together with a suitable certificate. Any approved changes, waivers, or deviations applicable to the subject material or equipment shall also be included.
- The certificate shall identify any procurement requirements that have not been met, together with an explanation and the means by which the nonconformances will be resolved.
- The certificate shall be attested to by the person responsible for the suppliers QA function as stated in the supplier's QA program.

PROCEDURES (Continued)

6.6.2.2 Where source verification is used, they shall be performed by a team of qualified individuals from Procurement, PQA, A-E, and the user organization.

6.6.2.2.1 Source verifications shall be performed at intervals which are consistent with the importance and complexity of the item or service.

6.6.2.2.2 Source verifications shall be implemented in accordance with plans established for performing inspections, examinations, or tests at predetermined points.

6.6.2.2.3 Established plans shall be derived from the procurement document requirements and applicable codes, standards, specifications, and procedures.

6.6.2.2.4 Acceptance of source verifications shall be documented and furnished to the receiving destination of the item, the purchaser, and the supplier.

6.6.2.2.5 Unacceptable conditions shall be documented in accordance with QP 15.0.

6.6.2.3 Where receiving inspection is used, consideration shall be given as applicable to source verification, audit documentation and the demonstrated quality performance of the supplier when performing the receipt inspection.

6.6.2.3.1 Items received at the YMP shall receive a receipt inspection in accordance with QP 10.0 to assure that they conform to the procurement document requirements.

6.6.2.3.2 Acceptance criteria for items received, shall be as defined in the procurement documents and documented on the Technical Inspection Report (TIR), Exhibit I, for the respective procurement, and shall include responsibilities for the actions to be completed.

6.6.2.3.3 The receipt inspection shall verify by objective evidence such features as proper configuration; identification; dimensional, physical and other characteristics; freedom from shipping damage; and cleanliness.

PROCEDURES (Continued)

6.6.2.3.4 Where supplier documentation is furnished prior to receipt inspection, as required by procurement documents, the review of those documents shall be in accordance with paragraph 6.5.

6.6.2.4 Where post-installation testing is used, the test requirements and acceptance documentation shall be as that established by the A-E, supplier, and the user organization.

6.6.2.4.1 The post-installation test requirements specified above shall describe the necessary responsibilities for performance, inspection, verification, and acceptance of the test

6.6.2.4.2 The post-installation testing shall be accomplished and inspected in accordance with the requirements provided in paragraph 6.6.2.4.

6.6.3 Handling, storage and shipping of items, equipment, and supplies received at the YMP shall be in accordance with QP 13.0.

6.6.4 Items which do not conform to the procurement document requirements shall be tagged as nonconforming items and segregated, where practical, from accepted items. The nonconforming condition shall be documented in accordance with QP 15.0.

6.6.5 Documentary evidence that material and equipment conform to the procurement requirements shall be available at the location where used or installed. This documentary evidence shall be retained under control of the YMP QA Records Management System and shall be sufficient to identify the specific requirements, such as codes, standards, or specifications that are to be met by the purchased material and equipment.

6.6.6 Acceptance of subcontract services shall be in accordance with procurement document requirements, procedures of Contract Administration and BH-6221, and shall include any/or a combination of the following:

- Technical verification of data produced.
- Surveillance and/or audit of activity.
- Review of objective evidence for conformance to procurement document requirements such as certifications, stress reports, etc.

6.7 Control of Supplier Nonconformances

6.7.1 Conditions identified by the supplier that do not meet the procurement document requirements in one of more or the items listed below, shall be deemed to be a nonconformance:

PROCEDURES (Continued)

- Technical or material requirements is violated.
- Requirement in supplier documents, which has been approved, is violated.
- Nonconforming condition cannot be corrected by continuation of the original manufacturing process or by rework.
- The item does not conform to the original requirement even though the item can be restored to a condition such that the capability of the item to function is unimpaired.

6.7.2 Upon identification of a nonconformance, the supplier shall document it and submit it to REECo Procurement.

6.7.2.1 The Nonconformance Report (NCR) shall describe the nonconforming condition.

6.7.2.2 The NCR shall also provide a recommended disposition, i.e., use-as-is, repair, rework, scrap. Repair/rework dispositions require a description of the method to be used to accomplish the repair/rework.

6.7.2.3 The NCR shall also provide a recommended technical justification for the recommended disposition.

6.7.3 Procurement shall transmit the Supplier's NCR to Engineering, PQA, and procurement originator.

6.7.4 Engineering, PQA, and procurement originator shall provide a disposition of supplier recommendations, provide approvals, and transmit the NCR to Procurement.

6.7.5 Procurement will return a copy of the dispositioned NCR to the Supplier.

6.7.6 Upon completion of the disposition, the supplier shall notify Procurement to arrange for verification by PQA and/or Engineering and procurement originator.

6.7.7 Upon acceptable verification of completion of the approved disposition, the NCR shall be closed.

6.7.8 Copies of the Supplier NCR shall be provided to the supplier, procurement, originator, and PQA.

6.8 Procurement of Commercial Grade Items

6.8.1 Design Commercial-Grade Items

PROCEDURES (Continued)

6.8.1.1 Where a design requires commercial grade items, which meet the definition in paragraph 4.3, the following requirements are an acceptable alternative to the above requirements and are as stated in this section 6.8.

6.8.1.2 The commercial grade item is used as an integral part of the designed facility and is identified in an approved design or design output document.

6.8.1.2.1 An alternate commercial grade item may be supplied if the cognizant organization provides verification that the alternate commercial grade item will perform the intended function and will meet the requirements applicable to both the replaced item and its application.

6.8.1.3 The supplier need not be listed on the REECo/YMP QSL.

6.8.1.4 Supplier evaluation and selection, shall be conducted in accordance with paragraphs 6.2 and 6.3 if it is determined necessary based on complexity of the item and importance to safety.

6.8.1.5 Commercial grade items shall be identified in the Purchase Order by the manufacturer's published product description, e.g., catalog number.

6.8.1.6 The only documentation required of a supplier is a Certificate of Conformance which states that the product supplied meets the requirements of their catalog and the Purchase Order.

6.8.1.7 Receipt inspection requirements for commercial grade items will be in accordance with the TIR and the AE instructions.

6.8.1.8 Procurement documentation for commercial grade items are subject to the same reviews and approvals as other procurement documentation.

6.8.1.9 Receipt inspection of commercial grade items shall be as follows:

6.8.1.9.1 TIR acceptance criteria for commercial grade items shall include the requirements to determine that the following conditions have been met:

- Damage was not sustained during shipment.
- The item received was the item ordered.

PROCEDURES (Continued)

- Inspection, testing, or both, is accomplished by the purchaser, in accordance with written procedures to ensure conformance with the manufacturer's published requirements. If applicable, acceptance of the item may be accomplished via the calibration program, in accordance with QP 12.0.

- Documentation, as applicable to the item, was received and is acceptable.

6.8.2 Scientific Investigation Commercial Grade Items

6.8.2.1 Where a scientific investigation requires commercial grade items, which meet the definition in paragraph 4.3, the control of such items shall be controlled by QP 4.0 and paragraphs 6.8.1.3, 6.8.1.4 thru 6.8.1.9 of section 6.8.

7.0 QA RECORDS

7.1 All procurement documents generated as a result of the implementation of this procedure, including Technical Inspection Reports, plans, checklists, reports, logs, or supplier generated documents, shall be considered a QA Record and shall be maintained in accordance with QP 17.0.

8.0 EXHIBITS

8.1 Technical Inspection Report, Exhibit I

Exhibit I
Technical Inspection Report

REYNOLDS ELECTRICAL & ENGINEERING CO., INC.

TECHNICAL INSPECTION REPORT

ITEM			PART NO	TIR NO. Over
PREPARED BY			BUYER	TIR DATE
PURCHASE ORDER NO	RELEASE NO	ITEM NO	VENDOR	
INSPECTOR		LOCATION INSPECTED		DATE INSPECTED
QUANTITY ORDERED	QUANTITY RECEIVED	QUANTITY INSPECTED	QUANTITY ACCEPTED	QUANTITY REJECTED

REQUIREMENTS	INSPECTOR

COMMENTS	
	INSPECTOR DEPARTMENT MANAGER

RE-1001 (3/69)

Reynolds Electrical & Engineering Co., Inc.	TITLE IDENTIFICATION AND CONTROL OF MATERIALS, PARTS, AND COMPONENTS	NO QP 8.0
YUCCA MOUNTAIN PROJECT QUALITY PROCEDURE		PAGE 1 of 4
	APPROVED R F Pritchett	REV. 4
	Technical Project Officer	DATE 5/26/89

INFORMATION COPY

CONTROLLED COPY NO. [redacted] THIS IS A RED STAMP

Revision 4: This revision supersedes QP 8.0, Revision 3, 01-03-89

1.0 PURPOSE AND SCOPE

1.1 This procedure defines the requirements and responsibilities for the identification and control of materials, items, parts, and components for the Yucca Mountain Project (YMP).

2.0 APPLICABILITY

2.1 This procedure applies to all materials, items, parts, and components that require specific identification and control during their useful life on the YMP.

2.2 REECo currently is not responsible for the taking of samples and data and as such the requirements for the identification and control of samples do not apply to this procedure.

3.0 REFERENCES

3.1 REECo Quality Assurance Program Plan, (QAPP) 568-DOC-115, for the Yucca Mountain Project.

3.2 QP 10.0, Inspection.

3.3 QP 12.0, Control of Measuraing and Test Equipment.

3.4 QP 15.0, Nonconformances

3.6 QP 17.0, Quality Assurance Records.

4.0 DEFINITIONS

4.1 Appendix A, Terms and Definitions, of 568-DOC-115, contains general definitions.

APPROVED: [signature] DATE 5/25/89
PROJECT QUALITY ASSURANCE MANAGER

PROCEDURE (Continued)

5.0 RESPONSIBILITIES

5.1 Project Quality Assurance Manager (PQAM) - The Project Quality Assurance Manager is responsible for assuring the implementation of this procedure.

5.2 Project Quality Assurance (PQA) - The Project Quality Assurance organization is responsible for the review of purchasing documents, criteria letters, work instructions, inspection forms, etc., to determine if specific requirements have been included.

5.1.1 PQA is responsible for assuring such requirements are included in the appropriate documentation to Procurement for inclusion in purchasing documents to suppliers and subtier suppliers.

5.1.2 PQA is responsible for assuring through surveillances and audits, that required identification and control of materials, items, parts, and components is maintaianed from initial receipt through storage, installation and final use..

5.3 General Stores Superintendent (GSS) - The General Stores Superintendent, through implementing procedures, is responsible for assuring that materials, items, parts, and components are identified and controlled from initial receipt and throughout storage and shall assure that identification documentation is controlled in accordance with this procedure.

5.4 Construction Engineering Department Manager (CEDM) - The Construction Engineering Department Manager is responsible for maintaining the identification and control of materials, items, parts, and components from the point of storage through installation and final use.

6.0 PROCEDURE

6.1 The GSS and CEDM, as applicable, shall assure that item identification responds to the requirements in this procedure for materials, items, and components from initial receipt, or fabrication of the items up to and including storage, installation and final use.

6.1.1 Items requiring special identification marking or control shall be marked by the supplier, user, or other authorized individuals in accordance with requirements documentation provided.

6.1.2 Identification shall relate to applicable design or specifiying document.

6.1.3 Identification is maintained on the item, its container, or in documents traceable to the item.

6.1.3.1 These identifiers shall be traceable to the final "end use" documentation.

PROCEDURES (Continued)

6.1.3.2 The identification markings, when used, shall be clear, legible, and not detrimental to the life of the item.

6.1.4 Items, when receipt inspected, shall be identified by inspecting agent to assure that only correct and accepted items are used or installed.

6.1.5 The identification shall be verified prior to installation or use by the user.

6.1.6 Identification markings shall be applied using materials and methods which provide a clear and legible identification and shall be located on the item and clearly visible whenever possible.

6.1.7 Physical identification on an item shall be used to the maximum extent possible.

6.1.7.1 Where physical identification on the item is either impractical or insufficient, identification shall be by physical separation or other appropriate means.

6.1.8 When physical separation of an item is required the subdivision of the item shall require the following provisions:

6.1.8.1 The identification markings shall be transferred to all subsections, and verified by inspection personnel, prior to the separation.

6.1.8.2 Identification shall include as a minimum the heat number, batch/lot number, part number, or serial number,

6.1.9 Items of production (batch, lot, component, part) shall be identified from initial receipt and fabrication of the items up to and including installation and use.

6.1.10 Identification markings shall not be detrimental or affect the function or service life of the item.

6.1.11 Where the item is too small or cannot be marked for other reasons, the identification marking is made on the container or package.

6.1.12 Identification markings shall not be covered by coatings of any form while identification is required.

6.1.13 Inspection of the item and its identification and the review of the documentation shall be performed in accordance with QP 10.0.

6.1.13.1 Items requiring special marking or other means of identification shall be inspected for proper marking at the time the items are received by the receiving inspector.

6.1.14 Provisions for identification shall apply to the identificatio and control of materials and items for which the shelf life or operating life is limited.

PROCEDURES (Continued)

6.1.14.1 Where the life of materials or items is limited the expiration dates shall be clearly marked and visible.

6.1.14.2 Where the identified shelf life of an item has expired, while in storage, the GSS shall provide for the removal/replacement of the item.

6.1.14.3 Where the identified shelf life of an item has expired, and the item has been issued, the CEDM shall provide for the removal/ replacement of the item.

6.1.14.4 Prior to installation of items or material having an identified limited shelf life the user/installer shall verify the shelf life of the item has not expired.

6.1.15 Provisions shall be made for maintenance and replacement of markings and identification due to the following conditions:

- Damage during handling and aging;
- Protection of identification on items subject to excessive deterioration due to environmental exposure;
- For updating existing facility records.

6.2 Identification of Requiring Calibration

6.2.1 Items specified as requiring calibration shall be tagged or labeled in accordance with QP 12.0, with the tagging and labeling showing the date calibrated, by whom, and dated due for recalibration.

6.3 Identification Nonconformances

6.2.3 Items that do not conform to the specified requirements shall be identified, segregated from acceptable items, and documented in in accordance with QP 15.0.

7.0 QA RECORDS

7.1 Identification documents which provide traceability to materials, items, and components shall be considered QA Records and shall be handled and maintained in accordance with QP 17.0.

8.0 EXHIBITS

8.1 NONE

Reynolds Electrical & Engineering Co., Inc.	TITLE CONTROL OF PROCESSES	NO. QP 9.0
		PAGE 1 of 4
YUCCA MOUNTAIN PROJECT	APPROVED R F Pritchett	REV 4
QUALITY PROCEDURE	Technical Project Officer	DATE 5/26/89

INFORMATION COPY

CONTROLLED NO. 23

Revision 4: This procedure supersedes QP 9.0, Revision 3, 01-03-89.

1.0 PURPOSE AND SCOPE

1.1 The purpose of this procedure is to establish the requirements for the control of processes and special processes which affect or verify the quality of engineered items.

1.2 This procedure addresses process control methods, special process procedures, qualification of personnel, special process equipment and records.

2.0 APPLICABILITY

2.1 This procedure applies to both processes and special processes identified by REECo for work on the Yucca Mountain Project (YMP). Special process requirements established herein apply to engineered items only.

3.0 REFERENCES

3.1 REECo Quality Assurance Program Plan, (QAPP) 568-DOC-115, for the Yucca Mountain Project.

3.2 QP 10.0, Inspection.

3.3 QP 17.0, Quality Assurance Records.

4.0 DEFINITIONS

4.1 Certification - The act of determining, verifying, and attesting to in writing the qualifications of personnel, processes, procedures, or items in accordance with specified requirements.

4.2 Qualification - The characteristics or abilities that are gained through education, training, or experience, which are measured against established requirements, such as standards or tests, which qualify an individual to perform a required function.

APPROVED: _____ DATE 5/25/87
PROJECT QUALITY ASSURANCE MANAGER

DEFINITIONS (Continued)

4.3 Process - A series of actions, changes, or functions which achieve an end or a result.

4.4 Special Process - A process, the results of which are highly dependent on the control of the process or the skill of the operators, or both, and in which the specified quality cannot be readily determined by inspection or test of the product.

4.5 Appendix A, Terms and Definitions, of QAPP 568-DOC-115, contains general definitions.

5.0 RESPONSIBILITIES

5.1 The Responsible Organization (the organization performing the work) -The Responsible Organization is responsible for identifying which portions of its activities involve the use of special processes as well as identifying other processes to be controlled.

5.2 Project Quality Assurance (PQA) - Project Quality Assurance is responsible for reviewing all controlled process documentation for compliance with YMP QA requirements.

6.0 PROCEDURE

6.1 General

6.1.1 Processes and special processes that control or verify quality such as those used in welding, heat treating, and nondestructive examinations shall be accomplished by qualified personnel using qualified procedures in accordance with applicable codes, standards, specifications, criteria, and other special requirements.

6.1.2 These measures shall ensure that process parameters are controlled and that specified environmental conditions are maintained.

6.1.3 The necessary requirements for qualifications of personnel, or procedures shall be specified or referenced in the procedures or instructions either for processes that are not covered by existing codes and standards or for processes where the quality requirements for an item or test exceed those of existing codes or standards.

6.1.4 Conditions necessary for accomplishment of the processes or special process shall be include in procedures or instructions.

6.1.4.1 These conditions shall include proper equipment, calibration requirements, and controlled parameters of the process.

DEFINITIONS (Continued)

6.2 Equipment

6.2.1 Process and special process equipment shall be checked out, qualified, and certified in accordance with specified requirements.

6.2.1.1 These requirements shall implement the requirements of applicable codes, standards, and specifications.

6.2.1.2 Equipment checkout, qualification, and certification shall be the responsibility of the organization performing the work.

6.2.1.3 PQA shall review the procedures for qualification of equipment for compliance with specified requirements.

6.3 Procedures

6.3.1 Process and special process procedures shall be qualified in accordance with the applicable codes, standards or other specifications.

6.3.1.1 The program for qualification of procedure shall be specified in documents prepared by the cognizant technical organization.

6.3.2 The requirements of applicable codes and standards, including acceptance criteria for the special process, shall be specified or referenced in the procedures or instructions.

6.3.3 PQA shall provide reviews of the procedures and instructions to assure compliance with the foregoing requirements.

6.4 Personnel Qualification

6.4.1 Personnel shall be trained, qualified and certified in accordance with written procedures.

6.4.1.1 Qualification shall utilize actual working procedures, to the extent possible.

6.4.1.2 These procedures shall be reviewed by the PQA organization for compliance with requirements.

6.4.2 The training, qualification, and certification shall be the responsibility of the organization that is performing the work.

6.4.3 Qualification of personnel shall incorporate the personnel requirements specified in the applicable codes, standards and specifications.

6.5 Records

6.5.1 Records shall be maintained for the currently qualified personnel, procedures and equipment of each process.

PROCEDURES (Continued)

6.5.1.1 Process verification methods, criteria and results shall also be documented.

6.5.2 Process and special process records shall be retained for the lifetime of the project.

7.0 QA RECORDS

7.1 There are no records generated by the implementation of this procedure. All records generated by the implementation of special process procedures, however, shall be QA Records and shall be considered QA Records and shall be handled and maintained in accordance with QP 17.0.

8.0 EXHIBITS

8.1 NONE

Reynolds Electrical & Engineering Co., Inc.	TITLE WELDING PROCEDURE QUALIFICATION	NO QP 9.1
		PAGE 1 of 3
YUCCA MOUNTAIN PROJECT	APPROVED	REV 3
QUALITY PROCEDURE	R F Pritchett	DATE 5/26/89
	Technical Project Officer	DIST

CONTROLLED NO. 3

Revision 3: This supersedes QP 9.1, Revision 2, 01-03-89

1.0 PURPOSE AND SCOPE

1.1 This procedure describes the process used for Qualifying Welding Procedures use by Qualified REECo Welders at the Yucca Mountain Project (YMP).

2.0 APPLICABILITY

2.1 This procedure applies to all Project Welding activities performed by REECo, whether initiated by the DOE/YMP Office, Participating Organizations, other NTS Support Contractors, or REECo.

NOTE: When direction for welding activities has been further clarified and delineated by the DOE/YMP, this procedure will be revised.

3.0 REFERENCES

3.1 REECo Quality Assurance Program Plan, (QAPP) 568-DOC-115, for the Yucca Mountain Project.

3.2 QP 17.0, Quality Assurance Records.

3.3 American Welding Society (AWS), D1.1

3.4 American Society of Mechanical Engineers (ASME), Section IX

4.0 DEFINITIONS

4.1 Essential Variable - The amount allowable for specific welding data. Example: if a test sample is welded using 100 amps current (nominal), and the essential change allowable is ± 10 amps, welding shall be done between 90 and 110 amps to be within the allowable limits of the PQR.

APPROVED: _____ DATE 5/25/89
PROJECT QUALITY ASSURANCE MANAGER

DEFINITIONS (Continued)

4.2 Procedure Qualification Record (PQR) - The record of the welding data (such as joint configuration, base metal, filler material, electrical characteristics, etc.) used to make a sample weld.

4.3 Welding Procedure Specification (WPS) - The document based upon qualified PQR(s) which contains the list of welding data variables for a particular method, materials, and position. The purpose of the WPS is to assure repeated weld quality by qualified welders.

4.4 Appendix A, Terms and Definitions, of QAPP 568-DOC-115, contains general definitions.

5.0 RESPONSIBILITIES

5.1 Welding Operations Support Facility (WOSF) - The Welding Operations Support Facility is responsible to identify and secure representative samples of material and equipment to be used in welding projects and preparing sample welds.

5.2 Welding Engineer - The Welding Engineer is responsible for all welding activities performed at the NTS.

6.0 PROCEDURE

6.1 The welding Operations Support Facility of Quality Operations shall provide for the following:

6.1.1 Works in conjunction with the applicable implementing group on approved projects to identify and secure representative samples of the material and equipment to be used in the project.

6.1.2 Prepares a sample weld using the project representatives material and equipment under the supervision of the welding engineer who records the welding data at the time of welding.

6.2 The Welding Engineer shall:

6.2.1 Record all applicable data at the time of welding.

6.2.2 Visually examine the sample weld and evaluate based upon criteria of the applicable code (i.e., AWS D1.1, ASME IX, etc.

6.2.3 When required by the applicable code, arrange for nondestructive testing of the sample weld (i.e. ultrasonic , radiographic, etc.) and attach a copy of the nondestructive evaluation report to the original PQR for retention.

PROCEDURES (Continued)

6.2.4 When required by the applicable code, arrange for destructive testing (i.e. blend testing, tensile testing, etc.) of sample welds found acceptable by nondestructive testing and attach a copy of the destructive evaluation report to the original PQR for retention.

6.2.5 Prepares the WPS from the completed PQR, listing the applicable welding data variables for the particular project that are to be used by the qualified welders assigned to the project.

NOTE: More than one WPS may be based upon a single PQR, provided that all aspects of the applicable code are met and the welding data on the WPS(s) does not exceed the limits of the essential variables for the PQR. WP's are open for revision and may be updated or changed within the limits of the essential variables of the corresponding PQR(s).

7.0 QA RECORDS

7.1 Welding Procedure Specifications and Procedure Qualification Records generated as a result of the implementation of this procedure will be considered Quality Assurance Records and shall be maintained in accordance with QP 17.0.

8.0 EXHIBITS

8.1 NONE

Reynolds Electrical & Engineering Co., Inc.	TITLE WELDER CERTIFICATION	NO. QP 9.2
		PAGE 1 of 3
YUCCA MOUNTAIN PROJECT	APPROVED	REV. 3
QUALITY PROCEDURE	RF Pritchett	DATE 5/26/89
	Technical Project Officer	DIST.

INFORMATION COPY

CONTROLLED NO. 23

Revision 3: This revision supersedes QP 9.2, Revision 2, 01-03-89

1.0 PURPOSE AND SCOPE

1.1 The purpose of this procedure is to describe the process to be used for certifying welders, welding operators, and tackers.

2.0 APPLICABILITY

2.1 This procedure is applicable to all welders, welding operators and tackers (including apprentices) performing welding operations for the Yucca Mountain Project (YMP).

2.2 All such individuals are required to be certified for each process, position, thickness range, and material to be used prior to performing any welding.

NOTE: When direction for welding activities has been further clarified and delineated by the DOE/YMP, this procedure will be revised.

3.0 REFERENCES

3.1 REECo Quality Assurance Program Plan, (QAPP) 568-DOC-115, for the Yucca Mountain Project.

3.2 QP 17.0, Quality Assurance Records.

4.0 DEFINITIONS

4.1 Welding Operations Support (WOS) - That subfunction of Quality Operations responsible for performing certification of welders, welding operators, and welding procedures.

4.2 Appendix A, Terms and Definitions, of 586-DOC-115, contains general definitions.

APPROVED: _____ DATE: 5/25/89
PROJECT QUALITY ASSURANCE MANAGER

PROCEDURE (Continued)

5.0 RESPONSIBILITIES

5.1 The Welding Operations Support (WOS) - The Welding Operations Support is responsible for securing and maintaining adequate material and equipment necessary for welding tests as necessary for YMP operations and conducting tests for welder certifications and maintaining the certifications.

5.2 Welding Department - The Welding Department is responsible for scheduling of welder certification and retesting of welders and maintaining status of certified welders.

6.0 PROCEDURE

6.1 The WOS shall work in conjunction with applicable implementing groups on approved projects to secure and maintain adequate material and equipment necessary for the performance of welding tests identified as necessary for YMP operations.

6.2 The WOS shall conduct tests of individuals submitted for certification to determine their capability to perform within the requirements of the specified welding operation.

6.3 The WOS shall stamp all individuals test plates for identification prior to beginning the test(s).

6.4 The WOS shall witness all welding tests.

6.5 The WOS shall visually examine and test, or arrange for the testing of all coupons prepared from the candidates test plates.

6.6 The WOS shall record all applicable information concerning the candidates' tests on the Welder Certification Test Record, form RE-8111 and maintain a file of such records to be processed in accordance with QP 17.0.

6.7 The WOS shall maintain a history and recall systems of employee certification by Department and Craft.

6.8 The WOS shall notify the welder's department manager when his certification is due to expire.

6.9 The WOS shall maintain, control, issue, and retrieve welder stamps.

6.10 The WOS shall maintain, provide, and revise as necessary the Welder Qualification Certificate, form RE-0005, card for each qualified welder or welding operator.

6.10.1 The card is to be provided to the qualified individual upon verification of all examination and testing required for qualification.

6.11 The welder's department shall contact the WOS to establish recertification by:

DEFINITIONS (Continued)

6.11.1 Submitting a properly executed Welder Qualification - 3 Month Process Verification, form RE-8118; or

6.11.2 Scheduling a time and date for retesting.

6.12 The welder's department shall provide a memorandum to the WOS if any of the certifications are no longer required.

6.13 The welder's department shall inform the WOS whenever a welder is transferred or terminated.

6.14 The welder's department shall assure that all recertification tests are scheduled to be performed and processed on or before the expiration date of the existing certification.

7.0 QA RECORDS

7.1 Welder Certification Test Record generated as a result of the implementation of this procedure shall be considered a QA Record and shall be handled and maintained in accordance with QP 17.0.

8.0 EXHIBITS

8.1 NONE

Reynolds Electrical & Engineering Co., Inc.	TITLE INSPECTION	NO. QP 10.0
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YUCCA MOUNTAIN PROJECT QUALITY PROCEDURE	APPROVED R F Pritchett Technical Project Officer	REV. 5
		DATE 5/26/89
		DIST.

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This procedure supersedes QP 10.0, Revision 4, 03-30-89.

1.0 PURPOSE AND SCOPE

1.1 This procedure delineates the responsibilities and instructions for the conduct of inspections that are performed on the Yucca Mountain Project (YMP). This includes receiving, field, and special inspections as requested of REECo/YMP by others.

2.0 APPLICABILITY

2.1 This procedure applies to all QA Level I and II inspections performed by REECo in conjunction with the Yucca Mountain Project.

2.2 The requirements provided by this procedure shall apply to engineered items and do not apply to scientific investigation activities.

3.0 REFERENCES

3.1 REECo Quality Assurance Program Plan, (QAPP) 568-DOC-115, for the Yucca Mountain Projece.

3.2 MIL-STD-105D, Sampling by Attributes.

3.3 QP 2.1, Certification of Inspection and Test Personnel.

3.4 QP 12.0, Control of Measuring and Test Equipment.

3.5 QP 15.0, Nonconformances.

4.0 DEFINITIONS

4.1 Originating Organization - The Participating Organization or NTS Support Contractor requiring REECo inspection services.

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PROJECT QUALITY ASSURANCE MANAGER

DEFINITIONS (Continued)

4.2 Holdpoint - Holdpoint is defined as that point in an operation where work involving that operation stops until the examination, inspection or test specified has been completed and signed off.

4.3 Appendix A, Terms and Definitions, of 568-DOC-115, contains general definitions.

5.0 RESPONSIBILITIES

5.1 Project Quality Assurance Manager (PQAM) - The Project Quality Assurance Manager shall be responsible for assuring that all inspections performed by REECo/YMP are performed in accordance with approved plans, schedules, and procedural requirements by certified inspection personnel.

5.2 Originating organizations are responsible for establishing inspection requirements and planning inspection activities for Quality Assurance Level I and II activities. Documentation will be provided to REECo so that the required inspections can be performed. Documentation must include characteristics, methods, equipment and acceptance and rejection criteria used when performing inspections.

5.3 When REECo is designated to perform inspection by the DOE/YMP office, certified REECo inspection personnel will perform such inspections and complete appropriate documentation. REECO inspection personnel will be certified in accordance with QP 2.1.

6.0 PROCEDURES

6.1 General Requirements

6.1.1 The majority of all inspections will be performed by and is the responsibility of the Architect Engineer (AE).

6.1.2 Where REECo/YMP is requested to perform inspection activities, they shall be accomplished in accordance with this procedure.

6.1.3 Should REECo/YMP be assigned inspection responsibilities for the project or portions thereof, this procedure shall be revised to include the requisite inspection reports/checklists

6.1.4 Where inspections requiring special expertise have been identified, personnel possessing the mechanical, electrical, non-destructive examination (NDE), or other technical expertise shall be utilized.

6.2 Inspection Preparation and Planning

6.2.1 When requested to perform inspection activities, the PQAM shall assign personnel who are qualified and certified in accordance with QP 2.1 to conduct the inspection.

PROCEDURES (Continued)

6.2.2 The PQAM shall assure that personnel are prepared for the inspection activity by providing them with the necessary information, such as. inspection requirements, accept/reject criteria, etc. Measuring and test equipment shall be provided, as necessary.

6.2.3 Personnel assigned to perform inspections shall take the following actions in preparation for their inspections:

6.2.3.1 They shall familiarize themselves with the requirements of the inspection activity by reviewing the latest approved revisions of applicable procedures, codes, standards, specifications, drawings. etc.

6.2.3.2 They shall obtain all necessary information, forms, instructions, etc., required to perform the inspection.

6.2.3.3 They shall prepare inspection plans/checklists which shall include the following:

- Identification of characteristics and activities to be inspected;
- A description of the method of inspection;
- Identification of the individuals or groups responsible for performing the inspection operation;
- Recording inspector or data recorder and the results of the inspection operation;
- Specifying necessary measuring and test equipment including accuracy requirements.

6.2.3.4 They shall assure that any measuring and test equipment used to perform the inspection is calibrated in accordance with QP 12.0.

6.3 Inspection Performance

6.3.1 The individual assigned to perform the inspection shall do so in accordance with the applicable requirements and the following guidelines:

6.3.1.1 Documentation - Inspection documents shall identify characteristics, methods, equipment, and acceptance and rejection criteria.

6.3.1.1.1 Provisions shall be made for the recording of objective evidence of the inspection results, identification and certification of inspection personnel and the accuracy of equipment required to perform the inspection.

PROCEDURES (Continued)

6.3.1.2 Sampling - Sampling, where used to verify the acceptability of a group of items, shall be performed using MIL-STD-105D, Sampling by Attributes.

6.3.1.3 Monitoring - If necessary, the inspection of items in process or under construction shall be performed to verify conformance to specifications.

6.3.1.3.1 If the inspection of items or activities in progress is neither possible nor advantageous, indirect control by monitoring shall be provided.

6.3.1.3.2 Both inspection and monitoring shall be provided if inadequate without both.

6.3.1.3.3 Where a combination of inspection and process monitoring methods is used, it shall be performed in a systematic manner to insure that the specified requirements for control of the process and quality of the item are being achieved throughout the duration of the process.

6.3.1.3.4 Monitoring shall be performed by Project Quality Assurance (PQA) personnel.

6.3.1.4 Supervision of Inspectors - Personnel performing inspections shall not report directly to immediate supervisors who are responsible for performing the work being inspected.

6.3.1.4.1 If these personnel are not part of the PQA organization, they shall have sufficient authority, access to work areas, and organizational freedom to:

- identify quality problems;
- initiate, recommend, or provide solutions to quality problems through designated channels;
- verify implementation of solutions;
- and assure that further processing, delivery, installation or use is controlled until proper disposition of a nonconformance, deficiency, or unsatisfactory condition has occurred.

6.3.1.4.2 When these persons or organizations who perform the inspection activities are not part of the PQA organization then the Project Quality Assurance organization will overview and monitor the inspection activity.

DEFINITIONS (Continued)

6.3.1.5 Inspector Certification - Each person who verifies conformance of work activities for purposes of acceptance shall be certified to perform such assigned inspection task in accordance with Appendix C of the QAPP 568-DOC-115.

6.3.1.6 Inspection Hold Points - When mandatory inspection or witness hold points are required beyond which work shall not proceed without consent of the designated representative, the specific hold points shall be indicated in appropriate documents.

6.3.1.6.1 Inspection acceptance shall be recorded before work can proceed beyond such hold point.

6.3.1.6.2 Consent to waive any specified hold or witness point shall be documented before work can be continued beyond the designated hold or witness point.

6.3.1.7 Inspection methods shall include evaluation of performance capability of essential emergency and safety systems and equipment, verification of calibration and integrity of instruments and instrument systems and verification of maintenance, as appropriate.

6.3.1.8 Inspection Requirements - Completed items shall be inspected for completeness, marking, calibration, adjustments, protection from damage or other characteristics as required to verify the item's conformance to specified requirements.

6.3.1.8.1 Quality records shall be reviewed for the results and resolution of nonconformances identified by prior inspections.

6.3.1.8.2 Quality records shall also be examined for adequacy and completeness.

6.3.1.8.3 The final inspection shall be planned to reach a conclusion regarding conformance of the item to specified requirements.

6.3.1.9 Resolution of Nonconformances - Nonconformances shall be handled in accordance with QP 15.0.

6.3.1.10 Modifications, repairs, or replacements of items performed subsequent to final inspection shall require reinspection or retests, as appropriate, to verify acceptability.

6.3.1.11 Acceptance of inspection shall be documented and approved by identified authorized personnel.

DEFINITIONS (Continued)

6.4 Inspection Documentation

6.4.1 Inspection results shall be documented in accordance with the instructions of the specific requirements or procedures, and shall contain as a minimum the following information:

- Item or activity inspected,
- Date of inspection,
- QA Level,
- Name and signature of inspector,
- Name(s) of personnel contacted during the inspection,
- Type of inspection,
- Inspection criteria,
- Equipment used,
- Results,
- Acceptance statement,
- Reference to information on action taken in connection with nonconformances.

7.0 QA RECORDS

7.1 All inspection documentation generated as a result of the activities outlined in this procedure, including inspection plans, procedures, checklists, reports, or logs shall be considered QA Records and shall be handled in accordance with QP 17.0

8.0 EXHIBITS

8.1 NONE

Reynolds Electrical & Engineering Co., Inc.	TITLE SURVEILLANCE	NO QP 10.1
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		DIST.

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Revision 5: This revision supersedes QP 10.1, Revision 4, 04-04-89.

1.0 PURPOSE AND SCOPE

1.1 This procedure establishes the responsibilities and methodology for the conduct of Quality Assurance (QA) surveillances of Yucca Mountain Project (YMP) activities to assure effective implementation of the requirements of the REECo Yucca Mountain Quality Assurance Program Plan (QAPP).

1.2 This procedure provides for the scheduling, planning, performance, reporting, follow-up and closure of surveillances.

2.0 APPLICABILITY

2.1 This procedure applies to all surveillances of QA Level I and II activities performed by QA personnel on the YMP.

3.0 REFERENCES

3.1 REECo Quality Assurance Program Plan, (QAPP) 568-DOC-115, for the Yucca Mountain Project.

3.2 QP 1.2, Stop Work Order.

3.3 QP 2.2, Personnel Qualification and Certification.

3.4 QP 15.0, Nonconformances.

3.5 QP 16.0, Corrective Action Requests.

3.6 QP 17.0, Quality Assurance Records.

4.0 DEFINITIONS

4.1 Appendix A, Terms and Definitions, of QAPP 568-DOC-115, contains general definitions.

APPROVED: _____ DATE 5/25/89
PROJECT QUALITY ASSURANCE MANAGER

PROCEDURE (Continued)

5.0 RESPONSIBILITIES

5.1 Project Quality Assurance Manager (PQAM) - The Project Quality Assurance Manager is responsible for assuring that surveillances of REECo activities are accomplished in accordance with this procedure.

5.2 The PQAM is responsible for the assignment of QA personnel, knowledgeable of the activity, to perform surveillances, the review and evaluation of surveillance results, and follow-up, as applicable, and the tracking and resolution of deficiencies and closure of surveillance actions.

6.0 PROCEDURE

6.1 Scheduling

6.1.1 Surveillances may be scheduled or unscheduled. They shall be performed according to the item or activity's impact or importance to the YMP.

6.1.2 The PQAM shall, at his discretion, assess project activities for surveillances to be performed based on the following conditions:

6.1.2.1 Where limited activities have been performed in a specific area but insufficient implementation to perform a program audit;

6.1.2.2 When information is received that a particular activity, process or event is in question due to deficiencies and/or nonconformances of items;

6.1.2.3 When requested by other YMP related organizations;

6.1.2.4 When determined appropriate based on an evaluation of previous surveillances, nonconformances, audit reports, corrective action requests, or trend analysis.

6.1.3 Whether scheduled or unscheduled, surveillances shall be accomplished in accordance with this procedure by personnel qualified in accordance with QP 2.2.

6.2 Planning

6.2.1 Planning of surveillances shall require the review of the requirements which govern the activity or item to be surveilled.

6.2.2 A surveillance plan, Exhibit I, shall be completed for each surveillance and as a minimum include the following:

- Scope of the surveillance.

PROCEDURE (Continued)

- The requirement(s), acceptance criteria and accuracy of any equipment required for the activity to be survielled.
- The date of the surveillance.
- Personnel performing surveillance.

6.2.3 Personnel shall obtain a surveillance number from the Surveillance Report Log, Exhibit III. The log shall be the method used for tracking surveillances and shall be maintained by Project Quality Assurance.

6.3 Performance

6.3.1 Surveillances shall be conducted to provide assurance that activities which affect quality are being performed in accordance with specified requirements.

6.3.2 When assigning personnel to perform surveillances, the PQAM shall provide them with any necessary information pertinent to the activity/item to be surveilled.

6.3.3 Personnel performing surveillances shall have sufficient authority and organizational freedom to identify quality problems, initiate recommend, or provide solutions; and to verify implementation of those solutions.

6.3.4 Surveillances shall be performed per the surveillance plan. The activity is reviewed using the following techniques as appropriate:

6.3.4.1 Reviewing requirements of specific activities with the personnel performing the activity to determine if personnel are capable, knowledgeable, and qualified.

6.3.4.2 Observing the activity (sequence of events performed and how they were performed) to determine if the activity is being performed in accordance with procedure requirements.

6.3.4.3 Reviewing the resultant documentation of the activity to determine if the activity was, or is being, performed in accordance with the approved procedure/ plan/instructions or drawings.

6.3.5 Surveillance personnel shall determine the following:

- Whether the activity, item, or personnel are in compliance with the established requirements;
- Whether the procedures are being properly implemented; and
- If the procedures are adequate for the activities being performed.

PROCEDURES (Continued)

6.3.6 If during the surveillance an attribute is identified as unsatisfactory, it shall be brought to the attention of the responsible supervisor for immediate remedial action.

6.3.7 Upon completion of the surveillance activity, comments, or discrepancies noted will be discussed with the personnel involved with that activity.

6.4 Reporting

6.4.1 Upon completion of the surveillance, the surveillance activity shall be documented on the Surveillance Report, Exhibit 2.

6.4.2 The report shall describe the results of the surveillance in a brief, concise narrative of the activity observed including the documents, files, and records reviewed. The report shall provide a statement of acceptability, as applicable.

6.4.3 Identified deficiencies, corrected during the surveillance, and the corrective action taken shall be documented in the Surveillance Report along with action to preclude recurrence.

6.4.3.1 The report shall be submitted to the PQAM for review and approval at which time the surveillance shall be considered closed.

6.4.3.2 A copy of the closed report shall be sent to the responsible division/department manager of the surveilled organization.

6.4.5 Deficiencies <u>not</u> corrected during the surveillance will be included in the Surveillance Report and documented for resolution as follows:

6.4.5.1 Programmatic deficiencies, or potential problems shall be documented and processed on a Corrective Action Request (CAR) in accordance with QP 16.0.

6.4.5.2 Items and construction nonconformances will be documented and processed on a Nonconformance Report (NCR) in accordance with QP 15.0.

6.4.5.3 The Surveillance Report shall be forwarded to the responsible division/department manager for action.

6.4.5.4 Upon receipt, the responsible manager shall review the reported deficiency(ies) and provide a response as to what timely actions have been taken or are planned to correct the condition. The corrective action shall provide for the following:

- Action taken to correct the identified deficiency;
- The root cause of the deficiency;

PROCEDURES (Continued)

- Action taken to preclude recurrence;
- Documented evidence of the action taken.

6.4.5.5 The responsible manager will respond to the Surveillance Report within 30 days with the proposed corrective action and effective date of implementation.

6.4.6 Responses not received in the allotted time shall be elevated to the next level of management by the PQAM.

6.4.7 Upon receipt of the response, it shall be evaluated by the PQAM and originator.

6.4.7.1 Unacceptable responses shall be returned to the responsible manager, with an explanation of rejection.

6.4.7.2 The responsible manager shall provide a corrected response within five (5) working days.

6.4.7.3 Corrected responses not received within the allotted time shall be handled per paragraph 6.4.6.

6.4.8 Evaluations of acceptable response shall be documented on the Surveillance Report, and signed and dated by the PQA evaluator and approved by the PQAM.

6.5 Follow-up Closure

6.5.1 A follow-up surveillance shall be performed on or after the specified corrective action implementation date, to verify that implementation of specified corrective action has been completed and is satisfactory.

6.5.2 If the corrective action taken is found to have been implemented satisfactorily, the Surveillance Report shall be signed by the individual performing the follow-up surveillance and submitted to the PQAM for approval.

6.5.2.1 Follow-up surveillances which find the unsatisfactory or lack of implementation of corrective action may result in it being elevated to a Stop Work Order.

6.5.3 Upon approval, the surveillance report is closed and a copy sent to the responsible manager of the surveilled organization.

7.0 QA RECORDS

7.1 Surveillance Plans, Surveillance Reports and Surveillance Report Logs generated by the implementation of this procedure shall be considered QA Records and handled in accordance with QP 17.0.

PROCEDURE (Continued)

8.0 **EXHIBITS**

8.1 Surveillance Plan, Exhibit 1

8.2 Surveillance Report, Exhibit 2

8.3 Surveillance Log, Exhibit 3

Exhibit I
REECo YMP Surveillance Plan

REECo YUCCA MOUNTAIN PROJECT

Surveillance Plan

SR No.: _____ Surveillance Performed By: _____

Scope:

Planned Date: _____

Location: _____

Reference Documents:

Equipment:

Checklist of Activity To Be Monitored:
For requirements list the document number and paragraph of the requirement.
Use a continuation sheet if necessary.

Requirement	Elements to be Observed
a.)	
	SAMPLE
b.)	
c.)	
d.)	
e.)	
f.)	
g.)	
h.)	

EXHIBIT II
REECo YMP Surveillance Report
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REECo YUCCA MOUNTAIN PROJECT

Surveillance Report

SR No.: _____ Location: _____ Date: _____

Planning Sheet Attached: Yes____ No____

Organization: _____ Personnel Contacted: _____

Reference Documents:

Observations:

Discrepancy or Nonconformance:

SAMPLE

Report Issued By: _____ Date: _____

Approved By: _____ Date: _____

Actions Taken to Report and Correct:

NCR No.: _____ CAR No.: _____

Response:

Date of Effectivity: _____ Dept. Manager: _____ Date: _____

Evaluation of Response:

Evaluated By: _____ Date: _____

Approved By: _____ Date: _____

Exhibit II
REECo YMP Surveillance Report
Instructions
Page 2 of 3

SR No.:	Enter the surveillance report number.
Location:	Enter the location of the surveillance.
Date:	Enter the date of the surveillance.
Planning Sheet Attached:	Enter the appropriate response to denote whether a surveillance plan is attached
Organization:	Enter the name of the organization surveilled
Reference Documents:	Enter the requirements documents covering the surveillance.
Observation:	Enter the results of the activity observed during the surveillance.
Discrepancy or Non-conformance:	Enter the conditions identified during the surveillance found to be deficient or nonconforming.
Report Issued By:	The individual performing the surveillance who issues the report shall sign.
Date:	Enter the date the Surveillance Report is signed by the individual who issues the report.
Approved By:	The PQAM signs denoting approval.
Date:	Enter the date the PQAM signs.
Actions Taken to Report and Correct:	Enter in the appropriate line the number of the document used to report the deficient condition. Enter N/A where no conditions noted.
Response:	Enter the response from the responsible manager.
Date of Effectivity:	Enter the effective date of the corrective action response.
Dept. Manager:	The responsible manager shall sign.
Date:	Enter the date the responsible manager signs.
Evaluation of Response:	Enter the evaluation of the response.
Evaluated By:	The individual evaluating the response shall sign.

Exhibit II
REECo YMP Surveillance Report
Instructions Continued
Page 3 of 3

Date:	Enter the date the Surveillance Report is signed by the individual who issues the report.
Approved By:	The PQAM signs denoting approval.
Date:	Enter the date the PQAM signs.

Exhibit III
REECo YMP Surveillance Log

(REECo Large Logo)
YUCCA MOUNTAIN PROJECT
SURVEILLANCE REPORT/STATUS LOG

Surveil. Report Number	Date of Surv.	Organization Surveilled	Date Sent	Sent To	Resp. Due Date	Date Resp. Eval.	Acc. or Rej.	Date Revised Resp. Due	Acc. or Rej.	Date Closed

SAMPLE

Reynolds Electrical & Engineering Co., Inc.	TITLE TEST CONTROL	NO QP 11.0
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		DIST.

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Revision 5: This revision supersedes QP 11.0, Revision 4, 03-17-89. 23

1.0 PURPOSE AND SCOPE

1.1 This procedure describes the measures established to ensure that structures, items, systems, and components perform satisfactorily in service.

2.0 APPLICABILITY

2.1 This procedure applies to Quality Level I and II engineered items and does not apply to scientific investigation activities.

NOTE: REECo/YMP anticipates very little, if any, activity in the area of testing. however, if REECo/YMP is assigned and assumes the responsibility for activities in this area, this procedure will be revised to provide the methods to fulfill the requirements as specified in QAPP 568-DOC-115.

3.0 REFERENCES

3.1 REECo Quality Assurance Program Plan, (QAPP) 568-DOC-115 for the Yucca Mountain Project.

3.2 QP 5.0, Instructions, Procedures, and Drawings.

3.3 QP 5.1, Preparation, Review, and Approval of Quality Procedures.

3.4 QP 5.3, Preparation, Review, and Approval of Implementing Procedures.

3.5 QP 6.0, Document Control.

3.6 QP 17.0, Quality Assurance Records.

3.7 American Society for Testing and Materials (ASTM).

3.8 YMP Administrative Procedures Manual.

APPROVED: Mous Fox DATE 5/25/89
PROJECT QUALITY ASSURANCE MANAGER

PROCEDURE (Continued)

4.0 DEFINITIONS

4.1 Test Control Documents - Test plans and procedures incorporating the requirements, actions and limits contained in applicable design criteria from the Participating Organization, NTS Support Contractor, or DOE/YMP office. These plans and procedures define the test and the methods for its execution; provide a means for assuring that test prerequisites are met; specify adequate instrumentation and suitable environmental conditions; provide for documentation evaluation, with records of test results; and delineate necessary Quality Assurance provisions.

4.2 Appendix A, Terms and Definitions, of QAPP 568-DOC-115, contains general definitions.

5.0 RESPONSIBILITIES

5.1 The manager of the functional organization responsible for supporting test activities is responsible for incorporating activities that achieve and maintain quality in the support operation; for carrying out such activities in accordance with specified requirements; and for documenting the activity.

5.2 REECo exercises subcontract control of contracted testing organizations through procurement and subcontract administration.

5.3 The YMPO, Participating Organization or NTS Support Contractor issuing test control documents is responsible for accomplishing the testing to assure conformance to Quality Assurance Requirements, unless otherwise specified in the criteria documents.

6.0 PROCEDURE

6.1 General Requirements

6.1.1 Test Plans, criteria letters, work instructions, etc., indicating a Quality Assurance Level I or II which are sent to the Technical Project Officer (TPO) for incorporation, will be reviewed by the TPO or his designated representative, and Project Quality Assurance (PQA), as a minimum, to verify that all applicable provisions have been sufficiently included or referenced in the document for REECo to be able to accomplish its task.

6.1.2 Documents that do not include adequate information will be returned to the originator for correction.

6.1.3 Procedures include provisions for assuring that all prerequisites for the given test have been met, that adequate instrumentation is available and used, and that the test is performed under suitable environmental conditions.

6.1.4 Provisions will be included for the recording of results and identification of personnel responsible for evaluating the results.

PROCEDURE (Continued)

6.2 Test Requirements

6.2.1 Test requirements and acceptance criteria shall be provided and approved by the Participating Organization or NTS Support Contractor responsible for the design of the item to be tested unless otherwise designated.

6.2.2 Required tests shall be controlled and include the following, as appropriate:

- Prototype qualification tests,
- Production tests,
- Proof tests prior to installation,
- Construction tests,
- Pre-operational tests, and
- Operational tests.

6.2.3 Test requirements and acceptance criteria shall be based upon specified requirements contained in applicable design or in other pertinent technical documents.

6.3 Test Procedures

6.3.1 Test Instructions, Procedures and Drawings

6.3.1.1 Instructions, procedures, and drawings for required tests shall be prepared in accordance with the requirements of QP 5.0, QP 5.1 or 5.3 as applicable.

6.3.1.2 The procedures or instructions shall include criteria for determining when a test is required and how the test will be performed.

6.3.2 Test Prerequisites

6.3.2.1 Test Procedures shall include or reference objectives and provisions for assuring that prerequisites for the given test have been met, that adequate instrumentation is available and used, that necessary monitoring is performed, and that suitable environmental conditions are maintained.

6.3.2.2 Prerequisites shall include the following as applicable:

- Calibrated instrumentation;
- Appropriate equipment;

PROCEDURE (Continued)

- Completeness of item to be tested;
- Trained personnel, certified in accordance with Appendix C, 568-DOC-115;
- Condition of equipment and the item under consideration; and
- Suitable environmental conditions and provisions for data acquisitions and storage.

6.3.3 Review of Procedures

6.3.3.1 Identification and Documentation

6.3.3.1.1 Control measures shall be applied to verify the adequacy of test plans and procedures and verification shall be performed in a timely manner

6.3.3.1.2 REECo shall identify and document the verification method used, the results of the verification, and the verifiers.

6.3.3.2 Timing of Verification

6.3.3.2.1 Verification of the adequacy of test plans and procedures shall be performed prior to release.

6.3.3.2.2 In those cases, where this timing can not be met, the portion or portions which have not been verified shall be identified and controlled.

6.3.3.2.3 In all cases, the verification shall be completed prior to relying on the test plans and procedures to perform its function.

6.3.3.3 Extent of Verification

6.3.3.3.1 The extent of the verification required is a function of the importance to safety of the item under consideration, the complexity, the degree of standardization, the state of the art, and the similarity with previously proved test plans and procedures.

6.3.3.3.2 Where the test plans and procedures have been subjected to a verification process in accordance with section 6.3.3, the verification process need not be duplicated for identical documents.

PROCEDURE (Continued)

6.3.3.3.3 However, the applicability of standardized or previously proven test plans and proce-dures, with respect to meeting pertinent inputs, shall be verified for each application.

6.3.3.3.4 Known problems affecting the standardized or previously proven test plans and procedures and their effects on other features shall be considered.

6.3.3.3.5 The original test plans and procedures and associated verification measures shall be adequately documented and referenced in the files of subsequent applications.

6.3.3.4 Changes to Verified Test Plans and Procedures

6.3.3.4.1 Changes to previously verified test plans and procedures shall require verification including evaluation of the effects of those changes.

6.3.3.5 Personnel Performing Verification

6.3.3.5.1 Test plans and procedures verification shall be performed in accordance with the requirements of paragraph 6.3.3.6 of this section by any competent, certified individual or individuals or certified group or groups other than those who developed the original test plan or procedure. This includes the following:

1.) Individuals or groups from the originator's same organization.

2.) Individuals or groups from other organizations contracted for this purpose.

3.) The originator's supervisor providing all of the following requirements are met:

- The supervisor is the only individual in the organization competent to perform verification.

- The supervisor did not establish the test plan or procedure input used, specify a singular approach, or rule out certain considerations.

PROCEDURE (Continued)

- The rational for satisfying the two requirements above is documented and approved by the management superior to the supervisor. The PQAM shall also concur.

6.3.3.6 Methods of Test Plan and Procedure

6.3.3.6.1 Verification shall be accomplished by any one or a combination of the following:

- Reviews,
- Alternate calculations, or
- Qualification testing.

6.3.3.6.2 Test Plan and Procedure Reviews

1.) Reviews are detailed critical reviews tc provide assurance that the test plan or procedure is correct and satisfactory.

2.) At a minimum, the items below shall be considered during the review and the results of such deliberations shall be documented.

- Were the inputs correctly selected?
- Are assumptions necessary to perform the activity adequately described and reasonable? Where necessary, are the assumptions identified for subsequent reverifications when the detailed activities are completed?
- Was an appropriate method used?
- Were the inputs correctly incorporated?
- Is the test plan or procedure output reasonable compared to inputs?
- Are the necessary input and verification requirements for interfacing organizations specified in the documents or in supporting procedures or instructions?

PROCEDURE (Continued)

- Are computer programs used for analysis identified and verified in accordance with the methods specified in the YMP Administrative Procedures Manual?

6.3.3.6.3 Alternate Calculations

1.) Alternate calculations are a form of analysis which may be used to determine the adequacy of the original analyses.

2.) The use of alternate calculations shall include a review of the appropriateness of assumptions, inputs, and computer programs or other calculation method used.

6.3.3.6.4 Qualification Tests

1.) Qualification tests that involve actual physical testing of systems, structures, or components may be used to verify the adequacy of test plans or procedures.

2.) Where adequacy is to be verified by qualification tests, the tests shall be identified.

3.) The test configuration shall be clearly defined and documented.

4.) Testing shall demonstrate adequacy of performance under conditions that simulate the most adverse conditions.

5.) Operating modes and environmental conditions in which the item must perform satisfactorily shall be considered in determining the most adverse conditions.

6.) Where the test is intended to verify only specific features, the other features shall be verified by other means.

7.) Test results shall be documented and evaluated by the responsible organization to assure that test requirements have been met.

PROCEDURE (Continued)

8.) If qualification testing indicates the modifications to the test are necessary to obtain acceptable performance, the modification shall be documented and the item modified and retested or otherwise verified to assure satisfactory performance.

9.) When tests are being performed on models or mockups, scaling laws shall be established and verified.

10.) The results of model test work shall be subject to error analysis, where applicable, prior to use in the final work.

6.3.4 Potential Sources of Error

6.3.4.1 The potential sources of uncertainty and error in test procedures which must be controlled and measured to assure that tests are well controlled shall be identified.

6.3.5 Alternative Test Procedures

6.3.5.1 In lieu of specially prepared written procedures, sections of a related document can be used.

6.3.5.2 Documents must include acceptance and rejection criteria.

6.3.5.3 Acceptable sources include:

- American Society for Testing and Materials (ASTM) methods,
- Supplier manuals,
- Equipment maintenance instructions,
- Approved drawings, or
- Travelers.

6.3.5.4 Such documents include adequate instruction to ensure the required quality of work.

6.3.5.5 The use of such documents or part thereof is documented to ensure the requirements of section 6.2 are met.

6.3.6. Test Results

6.3.6.1 Results are documented and evaluated by a responsible authority to ensure that requirements have been satisfied.

PROCEDURE (Continued)

6.3.7 Test Records

6.3.7.1 As a minimum, records shall identify the following:

- Item;
- Date;
- Tester or data recorder;
- Type of observation;
- Results and acceptability;
- Action taken in connection with any deviations noted; and
- Person evaluating results.

7.0 QA RECORDS

7.1 Instructions, Procedures, Drawings, and Test Results shall be considered QA Records, and shall be handled and maintained in accordance with QP 17.0.

8.0 EXHIBITS

8.1 NONE

Reynolds Electrical & Engineering Co., Inc.	TITLE CONTROL OF MEASURING AND TEST EQUIPMENT	NO. QP 12.0
		PAGE 1 of 6
YUCCA MOUNTAIN PROJECT	APPROVED	REV. 6
QUALITY PROCEDURE	RJ Pritchett	DATE 5/26/89
	Technical Project Officer	DIST.

INFORMATION COPY

CONTROL COPY 23

Revision 6: This revision supersedes QP 12.0, Revision 5, 03-30-89.

1.0 PURPOSE AND SCOPE

1.1 This procedure establishes the methods to be used to ensure that all measuring and test equipment (M&TE) used for activities affecting quality are controlled and at specified periods, calibrated and adjusted to maintain the necessary accuracy of such items.

1.2 This procedure provides for the selection, usage, storage, and calibration of M&TE used on the Yucca Mountain Project (YMP)

2.0 APPLICABILITY

2.1 This procedure applies to all M&TE used on the Yucca Mountain Project (YMP) requiring periodic calibration and/or adjustment.

3.0 REFERENCES

3.1 REECo Quality Assurance Program Plan, (QAPP) 568-DOC-115 for the Yucca Mountain Project.

3.2 QP 7.0, Control of Purchased Materials, Equipment, and Services.

3.3 QP 17.0, Quality Assurance Records.

3.4 REECo Calibration Laboratory Calibration Procedures, (CP-Series).

4.0 DEFINITIONS

4.1 Appendix A, Terms and Definitions, of QAPP 568-DOC-115, contains general definitions.

APPROVED: Moses [signature] DATE 5/25/89
PROJECT QUALITY ASSURANCE MANAGER

PROCEDURE (Continued)

5.0 RESPONSIBILITIES

5.1 Technical Project Officer (TPO) - The Technical Project Officer is responsible for assuring adherence to this procedure by all personnel at the REECo/YMP.

5.2 Project Quality Assurance Manager (PQAM) - The Project Quality Assurance Manager is responsible for assuring that the control of M&TE used on the YMP is in compliance with this procedure.

5.3 The REECO Physical Standards and Calibration Laboratory (Cal Lab) is responsible for maintaining their standards used for calibration to assure its accuracy and traceability to nationally recognized standards and for performing calibration of M&TE submitted to them in a timely manner.

5.4 The User Organizations of M&TE are responsible for the proper selection to assure items are of proper type, range, and accuracy to determine conformance to specified tolerance requirements and that items are in calibration prior to use. Users are responsible to assure that items are recalibrated prior to the items' calibration expiration date and proper storage, care, and use of M&TE.

6.0 PROCEDURES

6.1 General Requirements

6.1.1 Unless specified by the using organization, items shall be calibrated in accordance with REECo Physical Standards Laboratory procedures.

6.1.2 Storage and handling of M&TE shall as a minimum meet the requirements stated in this procedure.

6.1.3 REECo/YMP Project Procedures governing the operation of the Cal Lab shall meet the requirements of this procedure.

6.1.4 The M&TE shall include all tools, gauges, instruments, devices, or systems used to calibrate, measure, gauge, or inspect for obtaining data which will verify conformance to specific requirements, established characteristics, or values not known.

6.1.5 Calibration and control of commercial devices, i.e., rulers, tape measures, levels, and other such devices, are not required where normal commercial equipment provides adequate accuracy.

6.2 M&TE Selection

6.2.1 Users, in selecting M&TE, shall assure that items selected are capable of providing the proper type, range, and accuracy such that the desired results are obtained.

PROCEDURE (Continued)

6.2.2 Prior to installing M&TE into service, it shall be entered into a tracking system log which shall contain as a minimum: item, S/N, model number, user assigned number, date calibrated, date recalibration due, date put into service, date removed from service, date used, and where used.

6.2.2.1 A control number shall be assigned by the user organization and shall be marked on the item. The number assignment may be from an existing site numbering system or from the organizations developed system.

6.2.2.2 Where marking an item is detrimental to the items function, the number shall be placed on its case or where it is easily traceable to the item.

6.2.3 A calibration frequency shall be established based on the manufacturers recommendations and the following requirements:

6.2.3.1 Dependent on the type of equipment, the items shall be sent to the Cal Lab with a completed Calibration Services Request (CSR), Exhibit I, for an initial calibration and establishment of a calibration frequency.

6.2.3.2 The calibration frequency shall be based on the type of equipment, stability characteristics, required accuracy and precision, intended use, degree of usage, and other conditions that may affect M&TE.

6.2.4 A calibration sticker shall be conspicuously affixed to the item and shall display the date calibrated, identification of who performed calibration, and date next calibration is due.

6.3 M&TE Usage and Storage

6.3.1 Users shall ensure that M&TE is properly stored when not in use, allowing provision where required for cleanliness, humidity, and temperature controls, such that the accuracy of the item is not impaired.

6.3.2 The user shall ensure the item is within its calibration prior to use, and shall provide the necessary care during usage required to maintain its accuracy.

6.3.3 Measurements shall be recorded on the data sheet, log, inspection report, etc., and shall provide traceability to the M&TE item and its assigned number.

6.3.4 M&TE found to be out of calibration shall be removed from service, tagged, or segregated and shall not be used until recalibrated, per paragraph 6.4.

6.3.5 M&TE found to be out of calibration shall require an evaluation to be performed and documented as follows:

PROCEDURE (Continued)

6.3.5.1 The user organization shall initiate a review of all instances where the item was used since its last calibration.

6.3.5.2 All previous measurements, inspections, or tests, as applicable, shall be redone to verify their validity.

6.3.6 M&TE found to be consistently out of calibration shall be removed from service and replaced or repaired and an evaluation performed, per paragraph 6.3.5.1 and 6.3.5.2.

6.3.7 Users shall initiate a recalibration, per paragraph 6.3.9, for M&TE where accuracy of an item becomes suspect.

6.3.8 Users shall routinely monitor the M&TE tracking system to ensure that items due for recalibration are withdrawn from service and calibrated prior to their expiration.

6.3.9 Calibration of M&TE shall be obtained dependent on the type and nature of the item.

6.3.9.1 M&TE of a mechanical nature shall be calibrated by the Cal Lab, in accordance with the Cal Lab Calibration Procedures (CP-Series) and shall be forwarded to the Cal Lab under a completed CSR.

6.3.9.2 Calibration of M&TE other than of a mechanical, nature, i.e., electronic/electrical shall be accomplished by an approved test lab or manufacturer. They shall be qualified in accordance with QP 7.0.

6.4 Calibration of M&TE

6.4.1 The user shall assure that the calibration of M&TE meets the following requirements as a minimum.

6.4.1.1 The calibration of M&TE shall be against certified equipment traceable to the National Bureau of Standards or other nationally recognized standards.

6.4.1.2 Where no nationally recognized standards exists the test lab shall provide a documented basis for the calibration.

6.4.1.3 The standards used to calibrate M&TE shall have equal or greater accuracy than the item being calibrated.

6.4.1.4 Where the calibrating standard has the same accuracy as the item being calibrated, the basis of acceptance shall be documented and authorized by the test lab management. This management shall be identified.

PROCEDURE (Continued)

6.4.1.5 Calibration acceptance and rejection of M&TE shall be in keeping with the specified tolerances of the item and manufacturers requirements.

6.4.1.6 A certified calibration report, shall be submitted with the recalibrated piece of M&TE, showing the calibration process, the results, and anomalies if present.

6.4.1.7 A new calibration sticker shall be applied to the item per the requirements of paragraph 6.2.4.

7.0 QA RECORDS

7.1 Tracking system logs, calibration reports, Calibration Service Requests, traceability data records, and all documents generated by the implementation of this procedure shall be considered QA Records and shall be handled in accordance with QP 17.0

8.0 EXHIBITS

8.1 Calibration Services Request, Exhibit I

Exhibit I
Calibration Services Request

REYNOLDS ELECTRICAL & ENGINEERING CO., INC.

POST OFFICE BOX 98521 • LAS VEGAS, NV 89193-8521

CALIBRATION SERVICES REQUEST

User	Phone Number	Date of Request
Department Number		Mail Stop
Work Order		Type of Service CALIBRATE ☐ REPAIR ☐
Item		PTL No.
Remarks		

DISTRIBUTION: Original—CAL LAB. Copy—ORIGINATOR

RE-0128 (3/87)

Reynolds Electrical & Engineering Co., Inc.	TITLE HANDLING, STORAGE, AND SHIPPING	NO. QP 13.0
		PAGE 1 of 8
YUCCA MOUNTAIN PROJECT	APPROVED	REV. 5
QUALITY PROCEDURE	R7 Pritchett	DATE 5/26/89
	Technical Project Officer	DIST.

INFORMATION COPY

Revision 5: This revision supersedes QP 13.0, Revision 4, 04-06-89. 23

1.0 PURPOSE AND SCOPE

1.1 This procedure establishes the methods to be used to control the handling, storage, cleaning, and preservation of material and equipment to prevent damage, loss, or deterioration. Further this procedure provides the controls necessary to ensure the integrity of such items through monitoring and verification activities.

2.0 APPLICABILITY

2.1 This procedure applies to the handling, shipping, storage, cleaning, packaging and preservation activities for Quality Level I and II Yucca Mountain Project (YMP) materials, parts, components, and systems under the direct responsibility of REECo/YMP.

3.0 REFERENCES

3.1 REECo Quality Assurance Program Plan (QAPP) 568-DOC-115, for the Yucca Mountain Project

3.2 QP 8.0, Identification and Control of Materials, Parts, and Components.

3.3 QP 15.0, Nonconformances.

3.4 QP 17.0, Quality Assurance Records.

3.5 YMP Safety and Health Program Plan

4.0 DEFINITIONS

4.1 Appendix A, Terms and Definitions, of QAPP 568-DOC-115, contains general definitions.

APPROVED: _____ DATE 5/25/89
PROJECT QUALITY ASSURANCE MANAGER

DEFINITIONS (Continued)

4.2 Care and Maintenance Instructions (CMI) - A procedure that provides special instructions for the care and maintenance of any item, equipment, or material requiring special care and maintenance or special storage and handling.

NOTE: CMI's for storage, handling, packaging and preservation shall be provided for critical, sensitive, perishable, or execptionally expensive articles.

4.3 Storage Facilities - Specific warehouse, yard area or location designated and prepared for the storing of items, equipment or material.

5.0 RESPONSIBILITIES

5.1 YMP Logistical Support Manager (LSM) - The YMP Logistical Support Manager is responsible for ensuring implementation of handling and storage instructions and performance of CMI's.

5.2 YMP Construction Engineering Department Manager (CEDM) - The YMP Construction Engineering Department Manager is responsible for the preparation and maintenance of Care and Maintenance Instructions.

5.3 General Stores Superintendent (GSS) - The General Stores Superintendent is responsible for the identification of equipment/material maintenance, handling and preservation, for monitoring those activities, access control to warehouse and storage areas, receipt of equipment/material to the warehouse and physical handling of equipment/ materials.

5.4 Project Quality Assurance Manager (PQAM) - The Project Quality Assurance Manager is responsible for ensuring that audit/surveillance of YMP controlled storage and handling activities as well as assuring that maintenance activities are performed in accordance with the requirements of this procedure.

6.0 PROCEDURES

6.1 Handling

6.1.1 After proper receipt and identification of equipment and/or materials have been performed the GSS shall provide for proper handling as specified in the procurement documents or manufacturers recommendations; otherwise, good commercial practice shall be used.

6.1.2 Any handling processes requiring the use of special handling tools and equipment or hoisting and rigging aparatus shall be accomplished by operators experienced or trained in the use of the equipment.

6.1.2.1 Special handling tools and equipment or hoisting and rigging aparatus shall be inspected prior to use and properly maintained in accordance with approved procedures.

PROCEDURES (Continued)

6.1.3 Items requiring special handling because of weight, size, susceptibility to shock damage, or any other conditions that warrant special requirements shall be in accordance with approved procedures which incorporate the requirements of established codes, e.g., OSHA H-18.

6.1.4 Critical activities affecting safety shall be governed and controlled by the written procedures of the Occupational Safety and Fire Protection Organization which are Published in the YMP Safety and Health Program Plan.

6.2 Storage

6.2.1 Storage requirements or considerations shall be as indicated on the Purchase Order.

6.2.2 Identification shall remain with the item, or traceable to the item, throughout the storage period in accordance with QP 8.0.

6.2.3 Materials and/or equipment that are not subject to theft, contamination, nor deterioration due to environmental conditions may be placed in open storage. Materials and/or equipment subject to such conditions shall be stored in an enclosed, secured area.

6.2.4 Critical, sensitive, or perishable items shall be stored in accordance with manufacturers recommendations.

6.2.5 Storage areas shall be removed from the construction area.

6.3 Marking and Labeling

6.3.1 The GSS shall provide for marking and labeling of items, material, and components while in storage so as to adequately identify, maintain, and preserve the item.

6.3.2 The marking and labeling of items shall include the indication of the presence of special environments or the need for special controls

6.3.3 Marking and labeling of items shall be maintained during handling and storage activities and shall be retained with the item, material, component while they are under the jurisdiction of REECo/YMP.

6.4 Preservation

6.4.1 Care of items in storage shall be exercised in accordance with the following:

6.4.1.1 Items in storage shall have all covers, caps, plugs or other required closures intact. Covers removed for internal access shall be immediately replaced when access is no longer required.

PROCEDURES (Continued)

6.4.1.2 Temporary preservatives shall be left intact during storage. Should reapplication be required at the site, only those preservatives previously approved shall be used.

6.4.1.3 Preservation of perishable items shall be commensurate with manufacturers recommendations.

6.5 Houskeeping

6.5.1 The GSS shall assure that handling, shipping, and storage areas are kept sufficiently clean and orderly to permit efficient execution of handling, shipping and storage requirements and minimize fire hazards.

6.5.2 The GSS shall provide the required measures necessary to assure that items, material, and components being maintained in storage shall be kept clean and sufficiently free of dirt and debris such that they are not contaminated by substances that could be deleterious to them.

6.6 Implementation of Care and Maintenance Instructions (CMI's)

6.6.1 Implementation of maintenance activities shall be the responsibility of the LSM working in conjunction with the General Stores Supervisor.

6.6.2 The CEDM shall identify care and maintenance requirements from the review of a manufacturers and/or supplier recommendations.

6.6.2.1 The CEDM shall generate and maintain CMI's, Exhibit I, including instructions, performance frequency and the Care and Maintenance Instruction Log, (CMI Log), Exhibit II.

6.6.3 The CEDM shall generate the Equipment/Material Summary Maintenance Form (EMSF), Exhibit III, informing the appropriate parties of upcoming required maintenance performance.

6.6.4 The General Stores Superintendent will be responsible for the performance of CMI's for equipment/material under his care.

6.6.5 The Construction Engineering Department Manager will provide for the performance of CMI's for equipment/materials released to construction.

6.6.6 The Project Quality Assurance Manager shall provide inspections/surveillances for the verification of CMI performance.

6.6.7 Equipment problems or conditions that do not comply with this procedure shall be documented in accordance with QP 15.0.

PROCEDURES (Continued)

6.6.8 After completion of the required CMI, the ESMF shall be returned to the CEDM for updating of the individual equipment CMI's and the CMI Log.

6.6.9 When the equipment is turned over to the client the CEDM shall forward the CMI, any ESMF's and the signed off CMI Logs to Records Management for processing in accordance with QP 17.0.

7.0 QA RECORDS

7.1 Equipment CMI's, CMI Logs, Equipment/Material Summary Maintenance Forms, and Handling, Shipping, and Storage reports generated by the implementation of this procedure shall be considered QA Records and shall be handled in accordance with QP 17.0

8.0 EXHIBITS

8.1 Care and Maintenance Instruction Form, Exhibit I.

8.2 Care and Maintenance Log, Exhibit II.

8.3 Equipment/Material Summary Maintenance Form, Exhibit III.

Exhibit I
Care and Maintenance Instruction Form

Reynolds Electrical & Engineering Co., Inc.

YUCCA MOUNTAIN PROJECT
Care and Maintenance Instruction

CMI No.:	
Description:	
Equipment ID No.:	
Page _____ of _____	

Storage Area:	P.O. No.	Vendor:

Reference:

Instructions:

Exhibit II
Care and Maintenance Log

Reynolds Electrical & Engineering Co., Inc.
YUCCA MOUNTAIN PROJECT
Care and Maintenance
Instruction Log

CMI No.:

Equipment No.:

Page _____ of _____

Date	Description of Maintenance Performed	Performed By	Comments

Exhibit III
Equipment/Material Summary Maintenance Form

Reynolds Electrical & Engineering Co., Inc.
YUCCA MOUNTAIN PROJECT
Equipment Summary Maintenance

Item Part #, PO	Maintenance Activity	Maintenance Performed Date/Time/By	Next Sched. Maint. Date	Remarks

RE 7248 (4-83)

Reynolds Electrical & Engineering Co., Inc.	TITLE INSPECTION, TEST AND OPERATING STATUS	NO. QP 14.0
		PAGE 1 of 2
YUCCA MOUNTAIN PROJECT	APPROVED	REV. 5
QUALITY PROCEDURE	R F Pritchett	DATE 5/26/89
	Technical Project Officer	DIST.

INFORMATION COPY

Revision 5: This revision supersedes QP 14.0, Revision 4, 01-03-89. 23

1.0 PURPOSE AND SCOPE

1.1 To establish measures to indicate; by the use of markings such as stamps, tags, label, routing cards, or other suitable means; the status of inspections and tests performed upon engineered items, and the operational status of systems and components used on the Yucca Mountain Project (YMP).

2.0 APPLICABILITY

2.1 This procedure applies to all activities where it is necessary to maintain an accurate status of engineered items and operating systems to prevent the inadvertent bypassing of required inspections and tests, or to prevent operations or use, when not allowed.

NOTE: REECo's current responsibility for the identification of inspection, test and operating status has not been defined. At such time as this definition has been delineated, this procedure will be revised to further define the instructions, requirements and responsibilities for the required status identifiers.

3.0 REFERENCES

3.1 REECo Quality Assurance Program Plan (QAPP) 568-DOC-115, for the Yucca Mountain Project.

3.2 REECo Industrial Safety Manual.

3.3 QP 17.0, Quality Assurance Records.

4.0 DEFINITIONS

4.1 Appendix A, Terms and Definitions, of QAPP 568-DOC-115, contains general definitions.

APPROVED: _____ DATE 5/25/89
PROJECT QUALITY ASSURANCE MANAGER

PROCEDURE (Continued)

5.0 RESPONSIBILITIES

5.1 Personnel responsible for operations and safety, such as superintendents, department managers, and equipment inspectors shall have the authority and responsibility to indicate, as appropriate, the status of items in accordance with the REECo Industrial Safety Manual, appropriate REECo company and departmental procedures, and this procedure.

5.2 When REECo has the responsibility for maintaining the status of items, systems or activities, the appropriate documentation stating the applicable requirements shall be provided by the originating organization.

6.0 PROCEDURE

6.1 Indication of Status

6.1.1 The status of items, systems or activities is indicated by the use of physical segregation, tagging, marking travelers, stamps, inspection records, certificates, and/or other appropriate documentation.

6.1.2 Procedures describing status indicators and their use shall contain examples of each type indicator currently utilized.

6.1.3 Status indicators shall also provide for indicating the operating status of systems and components of the facility, such as by tagging valves and switches, to prevent inadvertent use.

6.2 Methods of Indicating Status

6.2.1 Indicators (tag, travelers, etc.) shall be placed physically on the items whenever required for the positive identification of status and should specifically state the status of the item, system or activity.

6.3 Application and Removal of Status Indicators

6.3.1 Only an individual properly authorized by the responsible organization has the authority to apply or remove status indicators.

7.0 QA RECORDS

7.1 Inspection, Test, and Operating Status records generated as a result of activities outlined in this procedure shall be considered QA Records and maintained in accordance with QP 17.0.

8.0 EXHIBITS

NONE

Reynolds Electrical & Engineering Co., Inc.	TITLE NONCONFORMANCES	NO. QP 15.0
		PAGE 1 of 13
YUCCA MOUNTAIN PROJECT	APPROVED	REV 6
QUALITY PROCEDURE	RJ Pritchett	DATE 5/26/89
	Technical Project Officer	DIST.

INFORMATION COPY

Revision 6. This revision supersedes QP 15.0, Revision 5, 03-30-89. 23

1.0 PURPOSE AND SCOPE

1.1 The purpose of this procedure is to define the requirements for identifying nonconformances and the processing of nonconformance reports to prevent the use of or installation of materials, parts or components that do not conform to applicable requirements. This procedure includes measures to identify, document, segregate, verify corrective action, and dispose of nonconforming items and notify affected organizations of detected nonconformances.

2.0 APPLICABILITY

2.1 This procedure applies to all materials, parts, and components for which REECo is responsible on the Yucca Mountain Project (YMP).

3.0 REFERENCES

3.1 REECo Quality Assurance Program Plan, (QAPP) 568-DOC-115 for the Yucca Mountain Project.

3.2 QP 10.0, Inspection.

3.3 QP 16.0, Corrective Action.

3.4 QP 16.2, Trend Analysis.

3.5 QP 17.0, Quality Assurance Records.

4.0 DEFINITIONS

4.1 Nonconformance - A deficiency in characteristics, documentation or procedure that renders the quality of an item unacceptable or indeterminate.

4.3 Appendix A, Terms and Definitions, of QAPP 568-DOC-115, contains general definitions.

APPROVED: _____ DATE 5/25/89
PROJECT QUALITY ASSURANCE MANAGER

PROCEDURE (Continued)

5.0 RESPONSIBILITIES

5.1 Department Managers - Department Managers are responsible for nonconforming items under their control. Personnel performing evaluations to determine the disposition of nonconforming items shall have demonstrated competence in the area they are evaluating. Such persons shall be appointed by the cognizant department manager.

5.2 Project Quality Assurance Manager (PQAM) - The Project Quality Assurance Manager shall assure that nonconformances are recorded, reported and processed in accordance with this procedure. Project Quality Assurance shall maintain the log for nonconformance reports (NCR's) and shall maintain a file of closed NCR's. NCR's requiring DOE/YMP approval shall be forwarded to the DOE/YMP office by the PQAM.

5.3 Requisitioner (For Special Order Items) - The requisitioner is responsible for assuring that nonconforming "Special Order" items are controlled in accordance with the requirements of this procedure. "Special Order" material or items are those specifically ordered for Quality Assurance Level I and II activities.

5.4 Project Engineer (PE) - The Project Engineer shall disposition all nonconformances, providing justification for dispositions. The PE shall interface with the A-E and/or other involved organizations as required.

5.5 Yucca Mountain Project Personnel - YMP personnel identifying a nonconforming condition relative to YMP activities shall document the condition by initiating a nonconformance report (Exhibit I) or by reporting the condition to PQA

6.0 PROCEDURE

6.1 Nonconformance Reporting

6.1.1 The individual detecting the nonconformance shall initiate a nonconformance report. After filling in the assigned blocks (see appendix to this procedure) the initiator will submit the NCR to the Project QA Office.

6.1.2 Project Quality Assurance shall assign an NCR control number, log the NCR and review those items (blocks) that have been completed for accuracy and completeness and forward it to the appropriate organization or assigned PE for further action as required.

6.1.3 The NCR Log (Exhibit II) shall contain the following information:

- The NCR number.
- A brief description of the nonconforming condition.

PROCEDURES (Continued)

- Identification of the person or organization responsible for determining the disposition.
- Responsibility for corrective action.
- The status (open or closed).

6.1.4 Copies of all Quality Assurance Level I and II NCRs shall be sent to the DOE/YMP PQM and the SAIC/T&MSS Project QA Department (QA Engineering Division Manager) upon issuance and closure. The original NCRs shall be sent to the DOE/YMP for approval as shown on the flow chart in Appendix A of this procedure.

6.1.5 The PE, after consulting with the A/E and/or other involved organizations, shall make a formal disposition which may be one of the following:

- Use-As-Is.
- Rework.
- Repair.
- Scrap.
- Reject.

6.1.6 The PE, when dispositioning the NCR, shall ensure the following:

6.1.6.1 Nonconformance documentation adequately identifies and describes the nonconformance.

6.1.6.2 Appropriate justification for the disposition has been documented. In the case of use-as-is or repair dispositions, technical justification is required. The as-built records, if such records are required, shall reflect the accepted deviation.

6.1.6.3 The disposition has referenced any approved design documents, procedures, plans, work orders, etc., that are to be used for the correction of the nonconforming condition.

6.1.6.4 The technical details for correction of the nonconforming condition are adequate for the recommended disposition.

6.1.6.5 If continuance has been requested, justification for the activity to continue has been documented and approved by the DOE/YMP office.

6.1.6.6 The disposition complies with existing design documents, test plans or procedures, reports, and regulatory requirements.

PROCEDURES (Continued)

6.1.6.7 If a change to reflect the as-built condition is appropriate, then the disposition addresses action to change the existing design documents, test plans or procedures, reports, etc. Any documents change shall also be cross referenced on the NCR.

6.1.6.8 Disposition has identified and documented the correction as repair, rework, use-as-is, reject, or scrap.

6.1.6.9 Disposition has identified the people or organization responsible to implement the disposition.

6.1.7 After providing the disposition the PE shall determine the cause of the nonconformance and indicate corrective action to prevent recurrence. This information shall then be provided to Project Quality Assurance.

6.1.8 Verification of acceptable corrective action shall be made by PQA.

6.1.9 In those cases where the disposition is "repair", DOE/YMP shall approve the proposed disposition prior to implementation. In the case of a proposed disposition of "use-as-is", the NCR shall be forwarded to DOE/YMP for approval after all actions necessary to support technical justification of the disposition have been completed. The appropriate DOE/YMP Branch Chief and the DOE/YMP PQM shall approve NCR dispositions involving "repair" or "use-as-is" determinations and conditional release recommendations.

6.1.10 The action taken to correct the nonconforming item shall be verified and documented. Repaired or reworked items shall be re-examined in accordance with both the applicable procedures and with the original acceptance criteria unless the disposition has provided for alternate acceptance criteria. If required, the as-built records shall reflect the approved deviation.

6.1.11 The appendix to this procedure details the processing (flow) of nonconformance reports from issuance to closure.

6.2 Nonconforming Materials/Items

6.2.1 Work on the nonconforming item shall be stopped until completion of the action specified in the NCR disposition.

6.2.1.1 If only a specific portion of the item is in nonconformance, then that specific area shall be identified and work may proceed on the remaining areas.

6.2.1.2 If work on a nonconforming item is to be continued (conditional release) prior to implementation of the disposition, the DOE/YMP office shall approve such continuance.

PROCEDURE (Continued)

6.2.1.3 Requests for conditional releases on nonconforming items shall include documented justification and assure that the following conditions are met:

- The nonconforming item can be removed or corrected at a later date without damage to or contamination of the associated permanent facility or structures.
- The nonconforming item remains accessible for inspection.
- The nonconforming item is evaluated and limitations for use of the equipment or system are established.
- Traceability and identification of the nonconforming item are maintained.

6.2.2 Identification of nonconforming items shall be made by marking, tagging, (see appendix A) or other methods that shall not adversely affect the end use of the item. The identification shall be legible, easily recognizable and shall include the nonconformance report number.

6.2.2.1 The nonconformance report number shall be a sequential number preceded by the organizational acronym (e.g., REECo-001).

6.2.2.2 When size or nature of the item or material precludes the use of a Hold Tag, (Exhibit III) the item or item container shall be conspicuously identified as nonconforming to prevent its being put into use.

6.2.3 Where practical, nonconforming items or material shall be physically segregated from acceptable items and placed in a specifically designated "hold"area until disposition of the nonconformance has been made.

6.2.3.1 When appropriate, this "hold" area shall be defined by walls, fencing or other such barriers and shall be under locked control with access limited to authorized personnel.

6.2.4 When space, processing or location requirements do not allow the establishment of such an area, the nonconforming material or items shall be boldly marked, removed from the area of acceptable materials by sufficient physical distance to positively prevent intermixing, and placed under the direct control of an authorized individual responsible for preventing their use prior to final disposition.

6.2.5 Should a nonconformance be noted during receipt inspection and the item or material be ultimately accepted, such acceptance shall be noted on the applicable Technical Inspection Report (TIR, QP 10.0), a copy of the disposition attached to the TIR, all "hold" markings removed from the item or material and the item or material processed as acceptable.

PROCEDURE (Continued)

6.3 Repetitive Nonconformances

6.3.1 When repetitive or recurring nonconforming conditions are identified, an evaluation shall be made as to whether or not further programmatic corrective action is warranted to preclude repetition.

6.3.2 This corrective action shall be beyond the scope of the action taken for the disposition on the existing NCRs and shall be processed in accordance with the corrective action procedure QP 16.0.

6.4 Trending

6.4.1 Nonconformance reports shall be periodically analyzed by the PQA to show quality trends and to help identify root causes of nonconformances.

6.4.2 Results shall be reported to upper management for review and assessment in accordance with QP 16.2.

7.0 QA RECORDS

7.1 Documentation generated as a result of the activities described in this procedure are the Nonconformance Report and Nonconformance Report Log. Those documents shall be considered QA Records and shall be maintained in accordance with QP 17.0.

8.0 EXHIBITS

8.1 Nonconformance Report, Exhibit I

8.2 Nonconformance Report Log, Exhibit II

APPENDIX A

PROCESSING THE NONCONFORMANCE REPORT AND USE OF THE HOLD TAG

1.0 **GENERAL**

1.1 This appendix and the attached flow chart delineate the steps in the processing of the Nonconformance Report and use of the HOLD TAG on the Yucca Mountain Project. The blocks on the Nonconformance Report will be completed by the individuals assigned that responsibility herein and in accordance with the instruction below.

2.0 **PROCEDURE**

2.1 The initiator is the person who writes the Nonconformance Report. That person may or may not be the same person who discovers the nonconformance. The initiator will complete "Location" through "Actual Condition" with the exception of NCR No., which is completed by Project Quality Assurance.

2.1.1 **Location** - This information should be definitive enough so that anyone can find the nonconforming item or material.

2.1.2 **Date and Time** - Self explanatory.

2.1.3 **Initiator/Department** - Name and departmental organization of the individual writing the Nonconformance Report.

2.1.4 **Operating Department** - The department responsible for the nonconforming item or material.

2.1.5 **Nonconforming Item or Activity** - Describe the item or material which is not in conformance with the stated requirements of the specification, procedure or drawing.

2.1.6 **Serial/Part No.** - The serial or part number of the nonconforming item if available.

2.1.7 **Responsible Organization** - The organization responsible for the nonconformance. Example: In the case of a procured item which was found to be nonconforming during receipt inspection the Operating Department might be the Supply & Property Department and the responsible organization might be the Procurement Department.

2.1.8 **Specification/Drawing/Procedure Requirement** - Enter the required condition as specified in the applicable specification, drawing or procedure and which have not been met.

2.1.9 **Actual Condition** - State the condition of the item or material specifying how it does not conform to the requirements as specified by the specification, drawing or procedure.

2.2 When the initiator completes the aforementioned blocks he or she forwards the original of the Nonconformance Report to Project Quality Assurance.

2.3 Project Quality Assurance shall review the NCR for accuracy and completeness. assign the next sequential number to the NCR log, and forward the original to the Project Engineer for disposition.

2.4 In the case of an NCR for QA Level I and II items Project QA shall send a copy of the NCR to the DOE/YMP and the SAIC/T&MSS Project QA Department (QA Engineering Division Manager) upon issuance and closure.

2.5 The Project Engineer or his designee shall complete the blocks Person/ Organization Making Disposition through Corrective Action in accordance with the instructions delineated below.

2.5.1 **Person/Organization Making Disposition** - The individual who makes the disposition shall enter their name and organization in this block.

2.5.2 **Disposition** - The individual providing the disposition shall check the appropriate block, use-as-is, rework, reject, or scrap and enter any instructions necessary to implement the disposition such as in the case of "rework" he or she shall enter detailed instructions for rework, i.e., tools to be used and required dimensions or specification or drawing requirements to be complied with.

2.5.3 **Justification of Disposition** - The justification for the disposition shall be specification, drawing or procedure requirements. If the disposition specifies action which deviates from the requirements of the specification, drawing, or procedure justification shall be provided in the form of design calculations or other design parameters.

2.5.4 **Corrective Action** - The Project Engineer shall specify corrective action to prevent recurrence.

2.6 After the foregoing blocks have been completed the PE will return the original to the NCR to Project Quality Assurance.

2.7 In the case of use-as-is or repair Project Quality Assurance shall send the NCR to the DOE/YMP for approval. Such approval shall be indicated by a DOE/YMP signature in the DOE/YMP "Approval" block. If DOE/YMP approval is not required, information copies of the NCR shall be sent to DOE/YMP PQM & SAIC/T&MSS.

2.8 Following dispositioning of the NCR by the PE and approved by the YMP, if required, Project Quality Assurance shall send a copy of the ncr to the department who is to implement the disposition.

2.9 After the disposition has been implemented the inspector will verify that the disposition has in fact been accomplished in accordance with the PE's instruction and sign the "Inspector Approval" block. The inspector shall then remove and destroy any Hold Tags used to identify the nonconforming item or material.

2.10 Project Quality Assurance shall obtain the PE's approval signature, sign the "Project QA Approval" block, close out the NCR in the NCR log and file the original.

2.11 Project Quality Assurance shall distribute copies of the closed out NCR to the DOE/YMP PQM & SAIC/T&MSS, if required, to the PE for as built information, to the Operating Department and to the responsible organization.

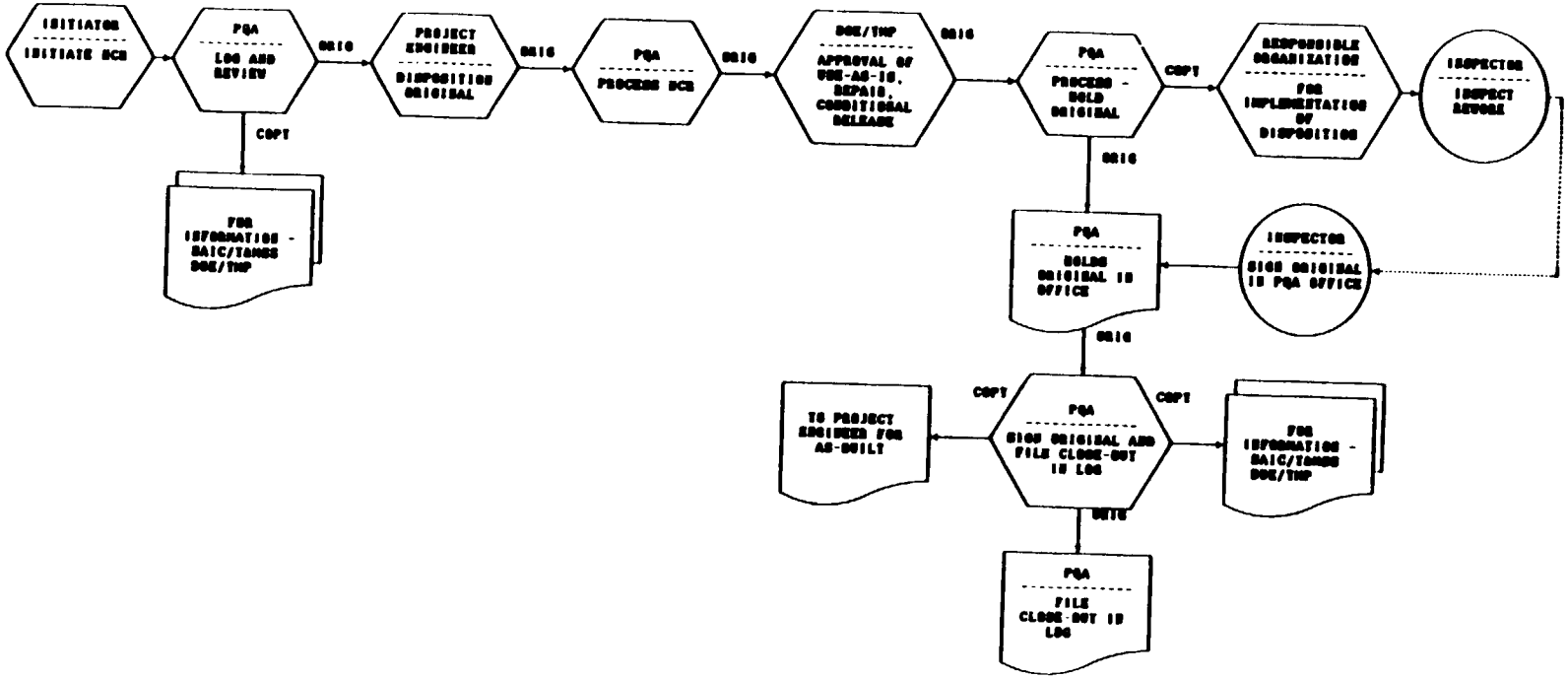
3.0 HOLD TAG

3.1 Nonconforming items shall be tagged with the HOLD TAG when practical. If tagging is not practical the container, package, or segregated storage area, as appropriate shall be designated.

3.2 The individual identifying the nonconformance shall complete the HOLD TAG, filling in the required information, and affix it to the item, package, or container.

3.3 When the nonconformance is closed out the HOLD TAG shall be removed only by PQA personnel and destroyed.

3.4 The information required to be entered on the HOLD TAG is self explanatory.



FLOW CHART FOR NONCONFORMANCE REPORTS

Exhibit I
Nonconformance Report

REYNOLDS ELECTRICAL & ENGINEERING CO., INC.
YUCCA MOUNTAIN PROJECT
NONCONFORMANCE REPORT

NCR NO.

PAGE OF

LOCATION | DATE | TIME

INITIATOR DEPARTMENT

OPERATING DEPARTMENT

NONCONFORMING ITEM OR ACTIVITY | PART NO./SERIAL NO

RESPONSIBLE ORGANIZATION

SPECIFICATION DRAWING PROCEDURE REQUIREMENT

ACTUAL CONDITION

PERSON ORGANIZATION MAKING DISPOSITION

DISPOSITION ☐ USE AS IS ☐ REJECT ☐ REPAIR ☐ SCRAP

JUSTIFICATION OF DISPOSITION

CORRECTIVE ACTION

INSPECTOR APPROVAL	DATE	DOE/YMP APPROVAL	DATE
PROJECT ENGINEER APPROVAL	DATE	PROJECT QA APPROVAL	DATE

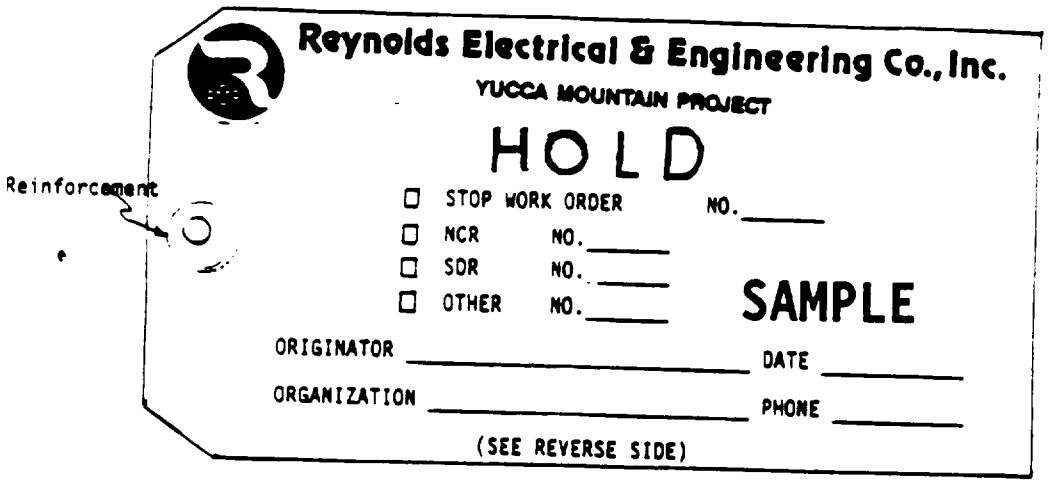
Exhibit II
Nonconformance Report Log

YUCCA MOUNTAIN PROJECT
NONCONFORMANCE REPORT/STATUS LOG

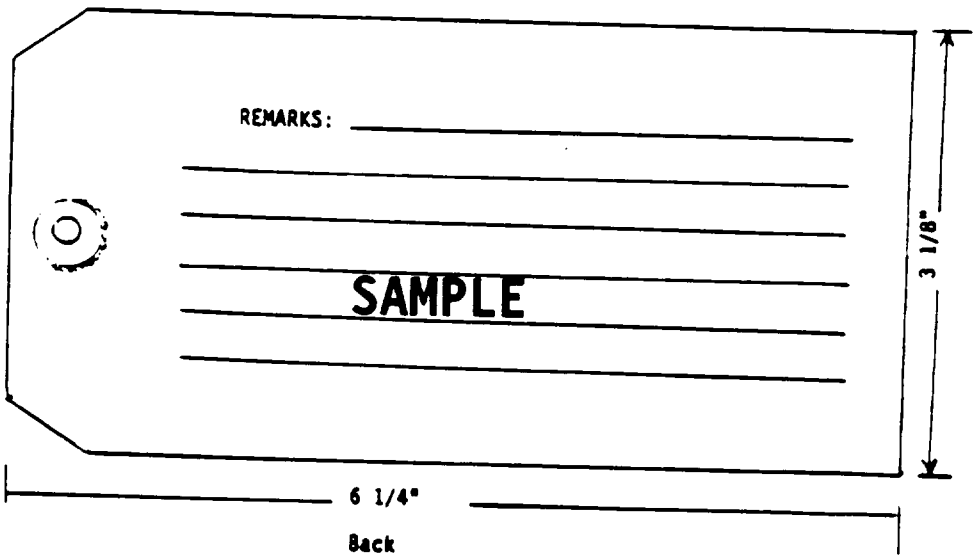
Report Number	Description	Organization Assigned	Status Open	Status Closed	Q. A Monthly Review

SAMPLE

Exhibit III
Hold Tag



Front



Back

Reynolds Electrical & Engineering Co., Inc.	TITLE CORRECTIVE ACTION	NO QP 16.0
		PAGE 1 of 10
YUCCA MOUNTAIN PROJECT QUALITY PROCEDURE	APPROVED R F Pritchett Technical Project Officer	REV. 6
		DATE 5/26/89
		DIST.

INFORMATION COPY

Revision 6: This revision supersedes QP 16.0, Rev 5, 04-06-89.

23

1.0 PURPOSE AND SCOPE

1.1 The purpose of this procedure is to delineate the responsibilities and establish a systematic method for ensuring that significant conditions adverse to quality or potentially adverse to quality are promptly identified and corrected; to ensure that proper reporting and documentation of such conditions are accomplished and corrective action is taken to prevent recurrence, in accordance with the applicable requirements established by REECo Quality Assurance Program Plan (QAPP) 568-DOC-115.

2.0 APPLICABILITY

2.1 This procedure applies to all REECo QA Level I and II activities conducted on the Yucca Mountain Project (YMP).

3.0 REFERENCES

3.1 REECo Quality Assurance Program Plan, (QAPP) 568-DOC-115, for the Yucca Mountain Project.

3.2 QP 16.2, Trend Analysis

3.3 QP 17.0, Quality Assurance Records.

4.0 DEFINITIONS

4.1 Condition adverse to quality - An all inclusive term used in reference to any of the following: Failures, malfunctions, deficiencies, defective items, and nonconformance.

4.2 A significant condition adverse to quality is one which, if not corrected, could have a serious effect on safety or operability.

APPROVED: _____ DATE 5/25/89
PROJECT QUALITY ASSURANCE MANAGER

DEFINITIONS (Continued)

4.3 Significant conditions include, but are not limited to, breakdown in the Quality Assurance Program and repetitive nonconformances.

4.4 Corrective action - Measures taken to rectify conditions that are adverse to quality and to preclude repetition.

4.5 Appendix A, Terms and Definitions, of QAPP 568-DOC-115, contains general definitions.

5.0 RESPONSIBILITIES

5.1 REECo personnel connected with activities on the YMP shall be responsible for reporting to Project Quality Assurance (PQA) and their immediate management any observed condition which is adverse to Quality.

NOTE: No Individual shall be deterred from reporting deficiencies or potentially adverse conditions to PQA.

5.2 Project Quality Assurance Manager (PQAM) - The Project Quality Assurance Manager is responsible for evaluating significant conditions adverse to quality or potentially adverse conditions; initiating the Corrective Action Request (CAR), Exhibit II; concurring with the proposed corrective action or providing other corrective action; ensuring that all significant conditions adverse to quality are properly documented and reported to upper levels of management for review and assessment; and implementing follow-up action to assure that corrective action is implemented in a manner which will preclude recurrence.

5.3 Department Managers - Department Managers of the organizations performing the activities in which any adverse condition is observed are responsible for:

5.3.1 Ensuring that immediate actions are taken to remedy the specific condition, e.g., that prompt evaluation of the extent of the condition has been made, that the cause and proposed action to resolve the condition have been reported to PQA, and that the approved corrective action has been implemented.

6.0 PROCEDURE

6.1 Reporting of Adverse Conditions

6.1.1 Any adverse condition or potentially adverse condition observed by any individual connected with the activity shall be reported to PQA and the responsible organization's management by preparing a Deficiency Notice (DN), Exhibit I.

6.1.1.2 Notification may be oral or written, depending on the urgency or criticality of the condition. Oral notification will be followed by written notification.

PROCEDURES (Continued)

6.2 Project Quality Assurance (PQA)

6.2.1 PQA shall evaluate notifications of adverse conditions to determine their validity as to whether they are significant conditions adverse to quality requiring initiation of a CAR.

6.2.2 If it is determined that the reported condition is not a valid deficiency, the originator will be so notified by memo or letter which documents the rationale/criteria for the determination.

6.2.2.1 The DN and related correspondence shall be retained as QA Records, in accordance with QP 17.0.

6.2.3 For conditions determined to be significant conditions adverse to quality, PQA shall:

6.2.3.1 Initiate a CAR and obtain approval by the PQAM for issuance.

6.2.3.2 Record the CAR in the Corrective Action Request Log (CARL), Exhibit III, and assign the next sequential number to the CAR and enter it in the appropriate block, in accordance with the instructions for filling out the CAR.

6.2.3.3 PQA shall forward the CAR to the organization responsible for performing the actions necessary to correct the adverse condition and send a copy to SAIC/T&MSS QA Department (QA Engineering Division Manager).

6.2.3.4 PQA shall enter data from the CAR into the tracking and trending data base in accordance with QP 16.2.

6.3 Responsible Organization

6.3.1 The responsible organization shall, upon receipt of the CAR, take immediate actions to remedy the adverse conditions by taking the following actions:

6.3.1.1 Perform an evaluation of the adverse condition of completed work;

6.3.1.2 Determine the root cause of the condition;

6.3.1.3 Document, on the CAR the following information:

- Root Cause,
- Impact on completed work,
- Actions to be taken to correct the existing condition(s),
- Measures to be taken to prevent recurrence.

PROCEDURES (Continued)

6.3.1.4 Forward a copy of the CAR to all affected managers at all levels as notification of the adverse condition(s) and for review and assessment, as well as, for information to improve conditions and avoid similar occurrences.

6.3.1.5 Return the original with the required root cause and proposed actions, etc., to PQA for evaluation and concurrence.

6.3.1.6 When approval of proposed corrective action is received from PQA, schedule corrective action, notify PQA of corrective action schedule, and complete corrective action.

6.3.1.7 The responsible organization shall respond to the CAR within five (5) days from date of receipt.

6.4 Project Quality Assurance(PQA)

6.4.1 When PQA receives the CAR from the responsible organization it shall evaluate the proposed corrective action to ensure that it properly defines the root cause of the condition and that it is adequate to resolve the condition and to prevent recurrence.

6.4.2 If the proposed corrective action is acceptable, PQA shall document its concurrence by signing and immediately returning the CAR to the responsible organization for action.

6.4.2.1 If the proposed corrective action is unacceptable, PQA shall notify the responsible organization in writing immediately, providing comments as to why it is not acceptable.

6.5 CAR Closure

6.5.3 When proposed corrective action is acceptable PQA shall schedule and perform verification of corrective action implementation.

6.5.3.1 When verification of corrective action is complete, PQA shall sign the CAR indicating its acceptance.

6.5.3.2 The PQAM shall approve the closed CAR and distribute copies to those individuals on the initial distribution.

6.5.3.3. PQA shall enter the corrective action completion date and CAR verified and closed data into the Corrective Action Request Log.

7.0 QA RECORDS

7.1 Completed Deficiency Notices, Corrective Action Request, Corrective Action Request Log, and related correspondence shall be considered QA records and shall be controlled and maintained in accordance with QP 17.0.

PROCEDURE (Continued)

8.0 **EXHIBITS**

8.1 Deficiency Report, Exhibit I.

8.2 Correction Action Request, Exhibit II.

8.3 Corrective Action Request Log, Exhibit III

Exhibit I
Deficiency Notice

REYNOLDS ELECTRICAL & ENGINEEERING CO., INC.
YUCCA MOUNTAIN PROJECT
DEFICIENCY NOTICE

ORIGINATOR:	DEPT:	DATE:

TO: PROJECT QUALITY ASSURANCE (PQA)	ATTN:

The information transcribed below represents a condition adverse to quality which requires your immediate attention.

CONDITION: (Include location, system(s) affected, description of deficiency, requirements violated. List requirements document(s), e.g., drawings, specifications, procedure.)

SAMPLE

PQA EVALUATION:

ACTION TAKEN:

|_| NCR # _____ |_| CAR # _____ |_| NONE REQ'D

|_| NEED ADDITIONAL INFO.

COMMENTS:

_____
Project Quality Assurance Manager

Exhibit II
Correction Action Request
Page 1 of 2

REYNOLDS ELECTRICAL & ENGINEERING CO., INC.
YUCCA MOUNTAIN PROJECT
CORRECTIVE ACTION REQUEST

CAR NO.

DATE

ADDRESSEE | DEPT. | ATTN.

ORIGINATOR:

Project Quality Assurance — Date

APPROVAL:

Project Quality Assurance Manager — Date

The information transcribed below represents a condition adverse to quality which requires your immediate attention. Your response to PQA is required within

DESCRIPTION OF ADVERSE CONDITION:

CAUSE, IMPACT ANALYSIS AND ACTION COMMITMENTS: (Document cause, impact on completed work, action to correct specific conditions and action to prevent recurrence.)

Addressee/Manager — Date

CONCURRENCE:

Project Quality Assurance Manager — Date

COMMENTS:

ACTION IS SATISFACTORY ☐ YES ☐ NO

VERIFIED BY: Project Quality Assurance — DATE

APPROVED BY: Project Quality Assurance Manager — DATE

Exhibit II
Correction Action Request
Page 2 of 2

Project Quality Assurance (PQA):

1. **CAR No.** - The originator of a CAR shall assign the next sequential number from the PQA Corrective Action Request Log (CARL).

2. Enter date CAR is written.

3. **Addressee/Department/Attention** - Enter the name of the responsible department manager, the Department, and the individual(s) contacted regarding the CAR.

4. **Originator** - PQA individual initiating the CAR shall sign and date as originator of the CAR.

5. **PQAM** - PQAM shall sign and date as approval for issuance for the CAR. The date signed is the issue date of the CAR.

6. **Description of Adverse Condition** - Enter a description of the condition(s) considered to be adverse to quality. Use supplementary sheets as necessary.

Addressee:

7. **Cause, Impact Analysis and Action Commitment - Enter:**

   a. the identified cause of the adverse condition;

   b. the impact of the adverse condition on completed work;

   c. action to correct the specific adverse condition; and

   d. action to prevent recurrence.

Project Quality Assurance (PQA):

8. **Concurrence** - PQAM sign and date when satisfied that action commitments

9. **Completed Action Verified** - Place "X" in appropriate box for completed action. Signature of PQA person performing the verification and the date verified.

10. **Action and Verification Complete** - PQAM sign and date signifying that CAR is closed.

Exhibit III
Corrective Action Request Log
Page 1 of 2

Reynolds Electrical & Engineering Co., Inc.

YUCCA MOUNTAIN PROJECT

CORRECTIVE ACTION REQUEST LOG

CAR NO.	ORIG. DATE	RESPONSIBLE ORGANIZATION	Brief description of adverse condition	Response Due Date	Corrective Action Date of Completion	CAR verified and closed Date	Remarks
		1/4" approx					

make up lines to fit page approx 1/4" apart - should be approx 25 lines to page

SAMPLE

Exhibit III
Corrective Action Request Log
Page 2 of 2
Instructions

Project Quality Assurance (PQA):

1. **CAR No. Assignment** - After approval for issuance by the PQAM, the originator of the CAR shall assign the next sequential number to the CAR Log and to the CAR that is being issued. (Only Approved for Issuance CAR's shall be logged.) Numbers in the Log start with the current year, a dash and a three-digit number, (001) at the beginning of the calendar year (e.g., the third CAR written in 1989 would be numbered 89-003).

2. Origination Date - Enter date CAR was written.

3. Enter responsible organization/addressee to whom CAR is being transmitted.

4. Record response due date. Response of CAR's shall be due five (5) working days from date of receipt.

5. Upon Receipt of CAR from Addressee record corrective action and date corrective action will be completed.

6. Enter date corrective action is verified and closed.

Reynolds Electrical & Engineering Co., Inc.	TITLE TREND ANALYSIS	NO. QP 16.2
		PAGE 1 of 3
YUCCA MOUNTAIN PROJECT	APPROVED	REV. 2
QUALITY PROCEDURE	RJ Pritchett	DATE 5/26/89
	Technical Project Officer	DIST.

INFORMATION COPY

Revision 2: This revision supersedes QP 16.2, Revision 1, 03-23-89. 23

1.0 PURPOSE AND SCOPE

1.1 This procedure defines the requirements, responsibilities and basic methodology employed by REECo/YMP Project Quality Assurance (PQA) for tracking/monitoring of open items and trend analysis of conditions adverse to quality on the Yucca Mountain Project (YMP).

2.0 APPLICABILITY

2.1 This procedure applies to PQA in their effort to ensure that conditions adverse to quality are identified, corrected and that root causes are eliminated.

3.0 REFERENCES

3.1 REECo Quality Assurance Program Plan (QAPP) 568-DOC-115, for the Yucca Mountain Project.

3.2 QP 16.0, Corrective Action

3.3 QP 17.0, Quality Assurance Records.

4.0 DEFINITIONS

4.1 Conditions Adverse to Quality - An all-inclusive term used in reference to any of the following: failures, malfunctions, deficiencies, defective items, and nonconformances. A significant condition adverse to quality is one which, if not corrected, could have a serious effect on safety or operability.

4.2 Adverse Trend - Repetitive nonconformances (3 or more) for which previous corrective measures have proven ineffective, or nonconformances which may not be repetitive but are related and represent a programmatic or system breakdown or loss of confidence in the integrity or effectiveness of a required QA Program control activity.

APPROVED: _____ DATE 5/25/89
PROJECT QUALITY ASSURANCE MANAGER

DEFINITIONS (Continued)

4.3 Appendix A, Terms and Definitions, of QAPP 568-DOC-115, contains general definitions.

5.0 RESPONSIBILITIES

5.1 Project Quality Assurance Manager (PQAM) - The Project Quality Assurance Manager is responsible for tracking and monitoring all identified conditions adverse to quality relative to REECo/YMP activities and for analyzing quality data for trends. The PQAM is further responsible for reporting the results of these activities to the Technical Project Officer (TPO) and other cognizant REECo management.

5.2 Cognizant REECo Management - Reeco management is responsible for promptly taking actions to resolve open items and adverse trends in activities for which they have responsibility.

6.0 PROCEDURE

6.1 Analysis of Deficiency Reporting Documents

6.1.1 All deficiency reporting documents issued by or to the YMP Division shall be reviewed by the PQAM to detect or analyze possible adverse trends, and will include the following documents:

- Nonconformance Report (NCR)
- Corrective Action Report (CAR)
- Audit Finding Report (AFR)
- Standard Deficiency Reports (SDR)

6.1.2 Data from the deficiency reporting documents shall be entered into a tracking and trending data base, and as a minimum shall include the following:

- Report type, i.e., SDR, NCR, etc.
- Report number.
- Issue date.
- Deficient item or activity.
- Subject of deficiency.
- Cause.
- Responsible organization.

PROCEDURES (Continued)

- QA Level.
- Cause if known.
- Corrective Action.
- Closure date.

NOTE: Codes as appropriate may be developed to accommodate the computerized manipulation of the data.

6.1.3 PQA shall review the deficiency document data base monthly, as a minimum, for potential adverse trends, i.e., sudden increase in like deficiencies, progressive increase in like deficiencies over several successive time increments or other considerations.

6.1.4 The PQAM shall evaluate all potential adverse trends to assess that they are in fact adverse trends, taking into account applicable influencing factors, such as:

- Changes in level of activity
- Changes in level of observation
- Similarity of cause
- Any other commonality or pattern among the repetitive deficiencies

6.1.5 Resolutions of identified trends and the status of open items shall be monitored by PQA.

6.2 Reporting of Trend Analysis

6.2.1 When an adverse trend, as defined by this procedure is identified, PQA shall initiate a CAR in accordance with QP 16.0.

6.2.2 PQA shall issue a monthly trend analysis report showing the status of open items and results of the trend analysis activity, to the TPO and other cognizant REECo/YMP management.

7.0 QA RECORDS

7.1 Trend Analysis reports generated, by the implementation of this procedure shall be considered QA Records and shall be handled in accordance with QP 17.0

8.0 EXHIBITS

NONE

Reynolds Electrical & Engineering Co., Inc.	TITLE QUALITY ASSURANCE RECORDS	NO. QP 17.0
YUCCA MOUNTAIN PROJECT QUALITY PROCEDURE		PAGE 1 of 9
	APPROVED R F Pritchett	REV 4
		DATE 5/26/89
	Technical Project Officer	DIST

INFORMATION COPY

Revision 4: This procedure supersedes QP 17.0, Revision 3, 01-03-89. 23

1.0 PURPOSE AND SCOPE

1.1 This procedure provides a systematic means of ensuring the availability of documentary evidence that attests to the quality of items, activities, and/or the qualifications of individuals at the Yucca Mountain Project (YMP).

1.2 It defines responsibilities and establishes the methods for the identification, control, protection, and disposition of documents designated as Quality Assurance Records in accordance with the requirements of the REECo/YMP Quality Assurance Program Plan (QAPP) 568-DOC-115.

2.0 APPLICABILITY

2.1 This procedure applies to all REECo organizations and supporting organizations generating or processing YMP Quality Assurance Records generated in conjunction with QA Level I and II activities.

2.2 These shall include, but are not limited to, design, procurement, technical, construction, operational, and other activity documents which provide documentary evidence of quality.

3.0 REFERENCES

3.1 REECo Quality Assurance Program Plan (QAPP) 568-DOC-115, for the Yucca Mountain Project.

4.0 DEFINITIONS

4.1 Quality Assurance Record - The term Records, used throughout this procedure, is to be interpreted as a Quality Assurance Record. A document or other item is not considered to be a Quality Assurance Record until it satisfies the following definition:

APPROVED: _____ DATE 5/25/89
PROJECT QUALITY ASSURANCE MANAGER

DEFINITIONS (Continued)

4.1.1 Quality Assurance Records include:

1) Individual documents that have been executed, completed, and approved 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 quality assurance programs (e.g., audits, 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.

4.1.2 A completed record is a document that will either receive no more entries or whose revision would normally consist of the reissue of the document and is signed and dated by the originator and, as applicable, by personnel authorized to approve the document.

4.1.3 Records shall be distributed, handled and controlled in accordance with this procedure and QAPP 568-DOC-115.

4.1.4 All records (including superseded records) shall be retained for the YMP.

4 2 Appendix A, Terms and Definitions, of QAPP 568-DOC-115, contains general definitions.

5.0 RESPONSIBILITIES

5.1 Technical Project Officer (TPO) shall assure that a REECo/YMP Records Management System is established; that procedures for implementation are developed; provide sufficient resources (facilities, equipment, and personnel) for implementation.

5.2 Information Management Office (IMO) - The Information Management Office is responsible for the managing, storage, and retrieval of documents generated and/or received which are designated as YMP Records and for assisting the matrix support departments in the training of record sources and the preparing of records for transmittal to the REECo Local Local Records (LRC).

RESPONSIBILITIES (Continued)

5.2.1 In addition, the IMO is responsible for submitting REECo Records to the Automated Records System (ARS) and managing and storing copies of Records and subsequent microfilm created by the YMP.

5.3 Project Quality Assurance Manager (PQAM) - The Project Quality Assurance Manager is responsible for surveillance and/or auditing of the REECo Record Management Program (RMP) to assure compliance with program requirements and for assuring that Records are controlled and processed in accordance with this procedure and QAPP 568-DOC-115.

5.4 Each organization generating records is responsible for the control, authentication and distribution of its own records, including:

5.4.1 Limiting record designation only to documents that provide evidence attesting to the quality of an item or activity or the qualifications of an individual.

5.4.2 Designating personnel authorized to authenticate records and maintaining a current listing, which contains the signature and initials of those individuals. (See Exhibit I, Quality Assurance Authentication List.)

5.4.3 Providing a current copy, of the listing of individuals authorized to authenticate records to the Project Quality Assurance Manager (PQAM) and to the REECo Local Records Center (LRC).

5.4.4 Ensuring that documents designated as records are legible, complete, and reproducible.

5.4.5 Transmitting the original, or best available copy to the LRC for processing. (See Exhibit II and Exhibit III, Local Records Center Transmittal Form.)

5.4.6 Receiving, index filing, access control, protection, retrieval and disposition of documents that will become records and are in interim storage.

5.4.7 Documenting record control procedure(s), record retention schedule(s), and interim storage procedures(s).

6.0 PROCEDURES

6.1 General Requirements

6.1.1 As a minimum, QA Records shall include documents which specify, verify, or affect quality, i.e., inspection reports, operating logs, document control logs, results or reviews, tests, audits monitoring of work performance, material analysis, and closely related documents such as qualifications of personnel, procedures, and equipment. (A typical list of QA records is provided in QAPP, 568-DOC-115, Appendix E.)

PROCEDURE (Continued)

6.1.1.1 Design specifications, procurement documents, QA procedures, work procedures, operational procedures, and other documents shall identify Records generated as a result of their implementation, as required by QAPP, 568-DOC-115.

6.1.2 All Records generated by REECo, and YMP Records generated by REECo subcontractors, suppliers, vendors, consultants, or other organizations providing services which affect the quality of activities or items shall be processed in accordance with this procedure and QAPP 568-DOC-115.

6.1.3 Those documents generated for YMP activities and designated as Records shall be legible, identified properly, accurate, complete, reproducible, microfilmable, and provide appropriate information as to the item or activity to which they apply.

6.1.3.1 Documents designated as Records shall be completed and processed in accordance with this procedure and the REECo/ YMP approved Records Management procedure

6.1.4 Documents generated and designated as Records shall be considered valid only if stamped, signed, or initialed and dated by authorized personnel. These records shall be the original or best reproducible copies if the original is not available.

6.1.4.1 Authentication may take the form of a statement by the responsible individual or organization.

6.1.4.2 Handwritten signatures are not required if the document is clearly identified as a statement made by the reporting individual or organization.

6.1.5 A Quality Assurance Records Authentication List, Exhibit I, which contains the signature and initials of those individuals authorized to authenticate Records shall be maintained current and a copy provided to the REECo LRC as well as the PQAM.

6.2 Receipt and Control of Records

6.2.1 Each organization within the REECo/YMP generating or receiving Records shall designate an individual or organization to perform the functions necessary for receipt, control, and transmittal of completed records to the LRC in accordance with approved REECo management procedures. (See Exhibit II and III for YMP Local Records Center Transmittal Forms.)

6.2.2. The individual or organization shall assure that records are protected from damage, deterioration, or loss during the time that the records are in their possession and when completed as a Record and transmitted to the LRC.

PROCEDURE (Continued)

6.2.3 The IMO is the designated organization within REECo/YMP responsible to perform the functions required for records management in accordance with the REECo/YMP approved Records Management procedure.

6.2.4 Records shall be clearly identified by a unique identification number or other designation directly traceable to the item or activity and shall adhere to the following requirements:

- The unique number shall not be repeated anywhere in the Project.
- The YMPO or its designee shall review and approve the records identification system.
- The records and/or indexing system(s) shall provide information to permit identification between the record and the item(s) or activity(ies) which it applies.
- Record identification and indexing will assure retrievablility.
- The indexing system(s) shall include record retention times and the location of the record within the record system(s).

6.2.5 For the purpose of retention, all Project Records are classified as "lifetime" records and shall be retained for the life of the Project. All Records shall be maintained in accordance with QAPP 568-DOC-115.

6.2.6 To assure compliance with the QA program requirements, PQA shall perform surveillance and/or audits of the REECo/YMP Records Management activities.

6.3 Records Storage

6.3.1 All Records shall be controlled from the time they are completed until the time they are placed into permanent storage.

6.3.1.1 The IMO shall provide for the temporary storage, preservation, safekeeping, and retrievability of completed Records in accordance with the REECo/YMP approved procedure for Records Management.

6.3.2 The IMO shall maintain, protect, and preserve Records during the time the Records are in their possession and assure proper transmittal to the LRC for permanent storage in accordance with the REECo/YMP approved Records Management procedure.

PROCEDURE (Continued)

7.0 QA RECORDS

7.1 YMP Authentication Lists, YMP Local Records Center Transmittal Forms, YMP Local Records Center Transmittal Form - Continuation Sheets, generated by the implementation of this procedure shall be considered QA Records and shall be handled in accordance with this procedure.

8.0 EXHIBITS

8.1 YMP Quality Assurance Records Authentication List, Exhibit I

8.2 YMP Local Records Center Transmittal Form, Exhibit II

8.3 YMP Local Records Center Transmittal Form - Continuation Sheet, Exhibit III

Exhibit I
YMP Quality Assurance Records Authentication List
Page 1 of 1

(REECo LOGO)
YUCCA MOUNTAIN PROJECT

QUALITY ASSURANCE RECORDS
AUTHENTICATION LIST

DATE	NAME OF AUTHORIZED PERSON	SIGNATURE OF AUTHORIZED PERSON	INITIALS	ORGANIZATION/DEPARTMENT

SAMPLE

The above personnel are authorized to authenticate all YMP Project QA Records generated within this Organization/Department in accordance with QAPP, 5A6-BOC-115. Their signature and/or initials shall be required, as appropriate, (i.e., initialed when space does not permit signature) on all records submitted to the Local Records Center for permanent or temporary storage.

Organization/Department Manager: _____ Date: _____

Exhibit II
YMP Local Records Center Transmittal Form
Page 1 of 1

REYNOLDS ELECTRICAL & ENGINEERING CO., INC.

YUCCA MOUNTAIN PROJECT
LOCAL RECORDS CENTER
TRANSMITTAL FORM

DEPARTMENT NO
YR
TRANSMITTAL NO
DATE
PAGE OF

ITEM NO.	ORIGINATOR NAME	DOC. I.D. NO.	DOC. DATE	TITLE/SUBJECT	QA LEVEL	WBS NO.	NO. PAGES	R	P	FOR LRC USE RMS NO.

RIC _____ *SIGNATURE _____ ORGANIZATION _____ DATE _____
(Print/Type Name)

DEPT. MANAGER _____ SIGNATURE _____ ORGANIZATION _____ DATE _____
(Print/Type Name)

*THIS SIGNATURE AFFIRMS THAT THE DOCUMENTS PROVIDED IN THIS TRANSMITTAL ARE COMPLETE AND READY FOR PROCESSING BY THE LOCAL RECORDS CENTER (LRC).

DISTRIBUTION
1 Yucca Mountain Project Local Records Center (LRC), M/S 404
2 Returned to Originator by LRC
3 Suspense Copy (Dept.)

Received by LRC _____ DATE _____

RE 7200 (10/89)

Exhibit III
YMP Local Records Center Transmittal Form - Continuation Sheet
Page 1 of 1

REYNOLDS ELECTRICAL & ENGINEERING CO., INC.
YUCCA MOUNTAIN PROJECT
LOCAL RECORDS CENTER
TRANSMITTAL FORM - CONTINUATION SHEET

DEPARTMENT NO
YR
TRANSMITTAL NO
DATE
PAGE OF

ITEM NO.	ORIGINATOR NAME	DOC. I.D. NO.	DOC. DATE	TITLE/SUBJECT	QA LEVEL	WBS NO.	NO PAGES	R	P	FOR LRC USE RMS NO

DISTRIBUTION

1 Yucca Mountain Project Local Records Center (LRC), M/S 404
2 Returned to Originator by LRC
3 Suspense Copy (Dept.)

RE-2201 (10/87)

Reynolds Electrical & Engineering Co., Inc.	TITLE AUDITS	NO. QP 18.0
		PAGE 1 of 16
YUCCA MOUNTAIN PROJECT	APPROVED	REV. 6
QUALITY PROCEDURE	Technical Project Officer	DATE 5/26/89
		DIST.

INFORMATION COPY

Revision 6: This revision supersedes QP 18.0, Revision 5, 03-28-89. 23

1.0 PURPOSE AND SCOPE

1.1 The purpose of this procedure is to provide the methodology for scheduling, planning, and conducting internal and external audits to verify that project activities comply with the requirements of the REECo Quality Assurance Program Plan, QAPP 568-DOC-115, for the Yucca Mountain Project.

1.2 This procedure covers scheduling, planning, and conducting audits; evaluations; selection of the audit team; reporting; and re-audits/ closeout, where findings are documented.

2.0 APPLICABILITY

2.1 This procedure applies to audits for QA Level I and II activities, internal and external, performed by the REECo/YMP Quality Assurance Department.

3.0 REFERENCES

3.1 REECo Quality Assurance Program Plan, (QAPP) 568-DOC-115, for the Yucca Mountain Project.

3.2 QP 1.2, Stop Work Order.

3.3 QP 17.0, Quality Assurance Records.

3.4 QP 16.2, Trend Analysis.

APPROVED: _____ DATE 5/25/89
PROJECT QUALITY ASSURANCE MANAGER

PROCEDURE (Continued)

4.0 DEFINITIONS

4.1 Audit - A planned and documented activity performed to determine by investigation, examination, or evaluation of objective evidence the adequacy of the compliance with established procedures, codes, standards, instructions, drawings, and other applicable requirements and the effectiveness of implementation. An audit should not be confused with surveillance or inspection activities performed for the sole purpose of process control or product acceptance.

4.2 External Audit - An audit of those portions of another organization's QA program which are neither under the direct control nor within the organizational structure of the auditing organization.

4.3 Internal Audits - An audit of those portions of an organization's QA program which are retained under its direct control and within its organizational structure.

4.4 Appendix "A", Terms and Definitions, of QAPP, 568-DOC-115, contains general definitions.

5.0 RESPONSIBILITIES

5.1 Yucca Mountain Project Quality Assurance (PQA) Department - The Project Quality Assurance Department is responsible for scheduling, planning, and conducting audits to provide an objective evaluation of the quality related practices, procedures, instructions, activities, and items including the review of documents and records, to ensure that the QA program is properly implemented and effective.

5.2 Project Quality Assurance Manager (PQAM) - The Project Quality Assurance Manager is responsible for assuring that audits are conducted as required, for review and approval of audit reports and assuring that audit follow-up is conducted.

5.3 Lead Auditor - The Lead Auditor is responsible for scheduling audits and assigning qualified personnel to perform audits; the development of audit plans; evaluation of the results of audits; and audit follow-up. He is also responsible for tracking audit findings and maintaining the Project Audit Log, Exhibit V.

6.0 PROCEDURE

6.1 General

6.1.1 Internal Audits

6.1.1.1 Applicable elements of the QAPP 568-DOC-115, shall be audited at least annually or at least once during the life of the activity, whichever is shorter.

6.1.1.2 The scope of the audit shall be established by:

PROCEDURES (Continued)

- Considering the results of any previous audits.
- The nature and frequency of identified deficiencies.
- Any significant change in personnel, organization, or in the QA program.

6.1.2 External Audits

6.1.2.1 Elements of an external organization's QA program shall be audited at least annually or once during the life of the activity, whichever is the shorter period, with the following exception:

6.1.2.1.1 if the activity is shorter than four months in duration, an audit is not required to be performed unless an audit is necessary due to the complexity or importance of the activity being performed.

6.1.2.2 The justification for not performing audits of vendors whose activities are less than four months in duration shall be documented and approved by the PQAM prior to implementation of the activity.

6.1.2.2.1 A copy of the justification shall be provided to the DOE/YMP PQM.

6.1.3 Joint Audits

6.1.3.1 If more than one purchaser buys from a single supplier, a purchaser may either perform or arrange for an audit of the supplier on behalf of itself and other purchasers to limit the number of audits of the supplier.

6.1.3.1.1 The scope of the audit shall satisfy the needs of all the purchasers and the audit report shall be distributed to all the purchasers for whom the audit was conducted.

6.1.3.1.2 Each of the purchasers relying on the results of an audit performed on behalf of the several purchasers remains individually responsible for the adequacy of the audit.

6.1.4 Evaluation

6.1.4.1 Performance evaluation for suppliers shall be performed annually and shall take into account, where applicable, the following:

PROCEDURES (Continued)

- Review of supplies furnished;
- Documents and records such as certificates of conformance, nonconformance notices, and corrective actions;
- Results of previous source verifications, audits, and receiving inspections;
- Operating experience of identical or similar products furnished by the same supplier;
- Results of audits from other sources, e.g., customer, ASME, or NRC audits.

6.1.4.2 Evaluations shall be documented on the Evaluation Report, Exhibit VI.

6.2 Audit Scheduling

6.2.1 Internal and external audits shall be scheduled in a manner such that the audits shall be initiated as early in the life of the activities as practical, consistent with the schedule for accomplishing the activity, to assure timely implementation of quality assurance requirements.

6.2.2 The audit schedule shall be based on evaluation of the applicable and active elements of the Quality Assurance Programs and the following information:

6.2.2.1 The status and importance of the activity;

6.2.2.2 Previous audit results and corrective actions;

6.2.2.3 Nonconformance reports;

6.2.2.4 Independent information e.g., from other sources such as experience of the nuclear industry, ASME, peer organizations, regulatory bodies, surveillances, and results of periodic monitoring.

6.2.3 As a minimum, audits of each applicable section of a QA Program shall be conducted within one year from the date of the previous audit or the activity.

6.2.3.1 The audit schedule shall also take into consideration work schedules, impact of work accessibility to the work area to be audited, etc.

6.2.4 The audit schedule shall be reviewed periodically and revised as necessary to assure that coverage is maintained and current.

6.2.5 Additional audits may supplement scheduled audits for one or more of the following reasons:

PROCEDURES (Continued)

6.2.5.1 To determine the adequacy of a supplier's Quality Assurance Program prior to awarding a contract or purchase order;

6.2.5.2 When, after award of a contract, sufficient time has elapsed for implementing the Quality Assurance Program and it is appropriate to determine that the organization is adequately performing the function as defined in the Quality Assurance Program, codes, standards, and other contract documents;

6.2.5.3 When sufficient changes are made in the Quality Assurance Program, procedures, or organization;

6.2.5.4 When is suspected that the quality of an item is in jeopardy due to deficiencies in the Quality Assurance Program;

6.2.5.5 When it is necessary to verify implementation of corrective action.

6.2.6 Audit Schedules and their revisions shall be submitted to SAIC/T&MSS Project QA Department (QA Verification Division Manager).

6.3 Audit Teams

6.3.1 The PQAM shall appoint a Lead Auditor and request, as appropriate, organizational elements (AE, Procurement, etc.) to provide specialists for the audit team.

6.3.2 The Lead Auditor shall select and assign qualified auditors.

6.3.2.1 Qualification of audit personnel shall be in accordance with Appendix F of QAPP 568-DOC-115.

NOTE: Records of personnel qualifications for auditors and Lead Auditors shall be completed and maintained in the PQA files. Records for each Lead Auditor shall be maintained and updated annually.

6.3.3 Multi-discipline audit teams shall be employed when activities to be audited involve more then a single technical area.

6.3.4 Auditors shall be independent of any direct responsibility for the performance of the activities that they are to audit.

6.3.5 Audit personnel shall have sufficient authority and organizational freedom to make the audit process meaningful and effective.

PROCEDURES (Continued)

6.4 Audit Preparation and Planning

6.4.1 The Lead auditor shall familiarize the audit team with the organization to be audited and its key members and shall prepare the audit team by providing applicable procedures, codes, standards, regulations, applicable purchase orders, suppliers Quality Assurance Program, suppliers quality history data, and prior audit reports for information and review by the auditor.

6.4.2 The Lead Auditor shall establish communications with the organization and shall provide the organization with written notice of the audit which shall include the completed Audit/Survey Plan, Exhibit I.

6.4.3 The Lead Auditor shall complete the Audit/Survey Plan which shall contain the following:

- Audit Number,
- Audited organization,
- Persons contacted,
- Lead Auditor's name,
- Audit team members,
- Audited Organization's Manager and title,
- Method of notification confirmation,
- Date of audit Plan,
- Scheduled Audit date(s),
- Audit/Survey Checklist number,
- Scope of Audit/Survey,
- Result of organization's procedures review,
- Name of person reviewing the organization's procedures,
- PQAM's signature and date.

6.4.4 The audit team shall prepare an Audit/Survey Checklist, Exhibit II.

6.4.4.1 The checklist shall contain the requirements applicable to the activity to be audited, the reference documents which are the sources of the requirements, and the status (results of the audit of the stated requirements).

PROCEDURES (Continued)

6.5 Audit Performance

6.5.1 The Lead Auditor shall conduct a pre-audit meeting with management and/or supervisory personnel, the audit team and, as applicable, supplier personnel of the audited organization.

6.5.1.1 The pre-audit meeting shall confirm the audit scope, introduces the audit team, discusses the audit sequence, establishes a tentative time for the post-audit meeting, and establishes channels of communication.

6.5.2 Audits shall be performed in accordance with established checklists and/or procedures.

6.5.2.1 The Audit checklist/procedure is intended for use as a guide and is not intended to be all encompassing or to restrict the audit investigation process when findings raise further questions that are not specifically included in the checklist/procedure.

6.5.3 The audit team members shall assure the method of performing the audit consists of, as a minimum, the following:

6.5.3.1 Review of procedures and work instructions for completeness, adequacy, accuracy, and responsiveness to Quality Assurance Program requirements;

6.5.3.2 Review of work areas for evidence of implementation of procedures and instructions;

6.5.3.3 Review of personnel training and qualification records where special skills and qualifications are required;

6.5.3.4 Review of selected work which has been accepted, such as products, design calculations and drawings and comparison of findings with applicable requirements and the basis for previous acceptance;

6.5.3.5 Review of process controls and records to determine conformance with specifications;

6.5.3.6 Review the extent to which top management is aware and acts on critical project information related to quality.

6.5.4 Objective evidence shall be examined to the depth necessary to determine if the elements selected to be audited are adequate for effective control and to determine whether or not they are being implemented effectively.

6.5.5 The auditor(s) shall document the objective evidence reviewed on the checklist.

PROCEDURES (Continued)

6.5.6 The auditor(s) shall discuss audit findings with the individuals being audited so that findings, as stated, are accurate and understood.

6.5.7 Conditions that require prompt corrective action shall be reported immediately to management of the audited organization.

6.5.8 The audit team shall, at the conclusion of the audit, conduct a post-audit meeting with cognizant management and/or supervisory personnel of the audited organization to present the audit results, findings, and observations and to discuss comments and clarify misunderstandings.

6.6 Audit Reporting (Internal)

6.6.1 The audit team, upon completion of an internal audit, shall complete a QA Audit/Survey Report, Exhibit III. Findings shall be documented on Audit Finding Reports, (AFR) Exhibit IV.

6.6.1.1 The audit report shall consist of the QA Audit/Survey Plan, QA Audit/Survey Report and Audit Finding Reports, as applicable.

6.6.2 The PQAM shall issue the Audit Report under an audit report memo within thirty (30) calendar days of completion of the audit.

6.6.2.1 The Audit Report will be issued to management of both the audited and auditing organizations.

6.6.3 For Audit Reports which contain AFR's the report cover memo shall require management of the audited organization to submit to the PQAM a written response to each AFR within thirty (30) days after receipt of the audit report.

6.6.3.1 The response shall identify on the AFR the following:

6.6.3.1.1 The root cause that led to the condition reported in the finding;

6.6.3.1.2 The steps which will be taken to correct the condition reported in the finding, including action to preclude recurrence;

6.6.3.1.3 The date when corrective action was or will be completed.

6.6.4 For Audit Reports containing observations, the report cover memo shall specify that the audited organizations must address the observations in the same manner as a finding.

6.7 Audit Reporting (External)

PROCEDURES (Continued)

6.7.1 The audit team, upon completion of an external audit, shall document the results of the audit in accordance with paragraphs 6.6.1, 6.6.2, 6.6.3, and 6.6.4.

6.7.2 The PQAM shall review the audit report and determine whether or not the supplier should remain on the Qualified Suppliers List (QSL).

6.7.2.1 The PQAM shall notify Procurement of the status.

6.7.3 Supplier post-audit status will be one of the following:

6.7.3.1 Satisfactory - Supplier will be retained on the QSL;

6.7.3.2 Conditional - The supplier will be conditionally retained on the QSL. This status will be granted only when the audit finding(s) will not adversely affect product quality;

6.7.3.3 Not Approved - A stop work order will be issued in accordance with QP 1.2. The stop work order shall remain in effect until the supplier completes the corrective action and follow-up is accomplished. As an option, the supplier may be removed from the QSL.

6.7.4 Procurement shall notify the supplier by letter, signed by the PQAM, of the audit results and shall attach the audit report and findings/observations.

6.8 Audit Follow-up

6.8.1 The Lead Auditor, upon receipt of responses to audit findings/ observations, shall evaluate the responses to determine if they are satisfactory.

6.8.2 Unacceptable responses will be noted on the AFR together with the cause for rejection.

6.8.2.1 The Lead auditor shall prepare transmittal correspondence reissuing the AFR to the responsible organization, specifying a new response date and include a copy of the original AFR with evaluation comments.

6.8.3 The Lead Auditor, upon receipt of satisfactory proposed corrective action, shall so note the acceptance on the AFR and coordinate the time for verification of corrective action with the audited organization.

6.8.4 The Lead Auditor shall track open audits by checking the Audit Log a minimum of every 30 days.

6.8.4.1 The AFR's for any open audits shall then be reviewed to determine what the open finding is, the proposed corrective action completion date, and whether or not verification of corrective action is due.

PROCEDURES (Continued)

6.8.4.2 If corrective action is overdue, the PQAM shall contact the audited organization to resolve the delinquency and to expedite closure of any open findings.

6.8.5 The Lead Auditor shall assure that verification of corrective action is accomplished and document the results on the AFR.

6.8.6 Upon completion (close-out) of all AFR's the PQAM (Procurement for external audits) shall notify the audited organization that actions are complete and have been approved.

6.8.7 The Lead Auditor shall note the close-out of audits in the Audit Log.

6.8.8 An analysis of audit results shall be performed by the PQA organization to identify quality trends in accordance with QP 16.2.

6.8.8.1 The results of the analysis shall be reported to responsible management for review, assessment, and appropriate action.

7.0 QA RECORDS

7.1 Audit/Survey Plan, Audit/Survey Checklist, Audit/Survey Report, Audit/Finding Report, Audit Log, Evaluation Report, all correspondence relating to the audits and other documents generated by the implementation of this procedure are considered QA Records and shall be controlled and maintained in accordance with QP 17.0.

8.0 EXHIBITS

8.1 Audit/Survey Plan, Exhibit I

8.2 Audit/Survey Checklist, Exhibit II

8.3 Audit/Survey Report, Exhibit III

8.4 Audit/Finding Report, Exhibit IV

8.5 Audit Log, Exhibit V

8.6 Evaluation Report, Exhibit VI

Exhibit I
Audit/Survey Plan

Reynolds Electrical & Engineering Co., Inc.

YUCCA MOUNTAIN PROJECT
QA AUDIT/SURVEY PLAN

ASSIGNED AUDIT/SURVEY NO

AUDITED ORGANIZATION | PERSONS CONTACTED | LEAD AUDITOR

AUDITED ORGANIZATION'S MANAGER & TITLE | TEAM MEMBERS

CONFIRMATION METHOD | DATE | SCHEDULED AUDIT DATE(S) | AUDIT CHECKLIST NO. TO BE USED

SCOPE OF AUDIT/SURVEY

REVIEW OF AUDITED ORGANIZATION'S PROCEDURES (LIST PROCEDURES & RESULTS OF REVIEW)

REVIEW ASSIGNED TO _____

REVIEWED & APPROVED _____ QA MANAGER DATE _____

RE-7559 (1/88)

Exhibit II
Audit/Survey Checklist

Reynolds Electrical & Engineering Co., Inc.

YUCCA MOUNTAIN PROJECT

QA AUDIT/SURVEY CHECKLIST NO.

AUDITED ORGANIZATION | LOCATION | DATE OF AUDIT | REPORT No. | PAGE | OF

AUDIT/SURVEY TEAM MEMBER(S)

NO	REFERENCE DOCUMENTS	REQUIREMENT	STATUS	A	U	N/A	APP NO

RE-2201 (10/71)

Exhibit III
Audit/Survey Report

REYNOLDS ELECTRICAL & ENGINEERING CO., INC.

YUCCA MOUNTAIN PROJECT

QA AUDIT/SURVEY REPORT

Page ____ of ____

AUDITED ORGANIZATION _____ AUDIT/SURVEY REPORT NO _____

DATE OF AUDIT/SURVEY _____ LOCATION _____

AUDIT/SURVEY SCOPE

AUDIT/SURVEY PURPOSE

SUMMARY (includes an evaluation of QA Program effectiveness)

(CONT'D. SEE ATTACHED)

AUDIT TEAM LEADER _____ DATE _____

QA MANAGER _____ DATE _____

DISTRIBUTION

RE-7555-1-2/89

Exhibit IV
Audit Finding Report

Reynolds Electrical & Engineering Co., Inc.

YUCCA MOUNTAIN PROJECT QA AUDIT/SURVEY FINDING REPORT (AFR)

3 AUDITED ORGANIZATION _____ 1 AUDIT REPORT NO _____

4 LOCATION _____ 2 AUDIT FINDING NO _____

5 DATE OF AUDIT/SURVEY _____ PAGE _____ OF _____

6 REFERENCED REQUIREMENT

7 AUDIT TEAM LEADER

8 TEAM MEMBER(S)

9 FINDING DESCRIPTION

9a CHECKLIST ITEM NO

9b AUDITOR

10 RESPONSE REQUIRED BY _____

11 RECOMMENDED CORRECTIVE ACTION (AT TEAM LEADER'S DISCRETION)

12 ITEMS 1-11 REVIEWED BY _____ DATE _____

MANAGER OF AUDITED ORGANIZATION

13 CAUSE OF THE DISCREPANCY (ITEM 9)

14 PROPOSED CORRECTIVE ACTION (INCLUDE ACTION TAKEN TO PRECLUDE RECURRENCE)

15 PROPOSED COMPLETION DATE _____ USE CONTINUATION SHEETS, IF NEEDED)

16 SIGNATURE _____ TITLE _____ DATE _____

17 REVIEW OF PROPOSED CORRECTIVE ACTION RESPONSE

☐ SATISFACTORY ☐ UNSATISFACTORY BECAUSE _____

☐ RE-AUDIT REQUIRED, OR ☐ FINDING IS CLOSED, BASED ON C.A. RESPONSE (SEE ITEM 14), OR

☐ DOCUMENTED OBJECTIVE EVIDENCE REQUIRED TEAM LEADER _____ DATE _____

18 RE-AUDIT (IF REQUIRED)—UTILIZED CHECKLIST NO _____ C/L ITEM NO _____

ADDITIONAL FINDINGS ☐ YES, SEE ATTACHED AFR TEAM LEADER _____ DATE _____

☐ NO, FINDING IS CLOSED QA SECTION CHIEF _____ DATE _____

19 REMARKS

RE-2201 (10/79)

Exhibit V
Audit Log

Reynolds Electrical & Engineering Co., Inc.
YUCCA MOUNTAIN PROJECT

AUDIT LOG

AUDITED ORGANIZATION _____ REPORT NO

AUDIT DATE _____ LEAD AUDITOR TEAM AUDITOR(S)

FINDING NUMBER	AUDITOR	FINDING SUMMARY	RESPONSE DATE	FOLLOW-UP AUDIT DATE	RESPONSE ACC/REJ	CLOSE OUT

Exhibit VI
Evaluation Report

Reynolds Electrical & Engineering Co., Inc.
YUCCA MOUNTAIN PROJECT
SUPPLIER EVALUATION

Page ____ of ____

EVALUATED ORGANIZATION _____

DATE OF EVALUATION _____ LOCATION _____

EVALUATION PURPOSE AND SCOPE:

☐ See Attached for Continuation

BASIS FOR EVALUATION (Check the appropriate block(s))

☐ 1. Review of supplies furnished, documents and records such as certificates of conformance, nocnonformance notices, and corrective actions.

☐ 2. Results of previous source verifications, audits and receiving inspections.

☐ 3. Operating experience of identical or similar products furnished by the same supplier.

☐ 4. Results of audits from other sources, e.g., customer, ASME, or NRC audits.

☐ 5. Other, as provided in space below.

☐ See Attached for Continuation

SUMMARY (Includes an evaluation of QA Program effectiveness):

SAMPLE

☐ See Attached for Continuation

EVALUATOR _____ DATE _____

PROJECT QA MANAGER _____ DATE _____

DISTRIBUTION