

NUCLEAR WASTE MANAGEMENT PROGRAM
CONTROLLED COPY NO. 0089

No.: 033-YMP-R Appendix E
Revision: 0
Date: December 15, 1988
Page: 1 of 7

Subject: APPENDIX E - "LIST OF TYPICAL QA RECORDS"

Approved: FEB 10 1989

Approved by: *A. Sallan* ^{12/20/88} Date
Yucca Mountain Project Leader

Approved by: *R. E. Smith* ^{12/16/88} Date
Quality Assurance Manager

The following is a list of typical QA records. The LLNL-YMP retention period is defined as lifetime. (1) QA records will be submitted to the DOE Project Office Records Center by the LLNL-YMP.

1.0 SITE CHARACTERIZATION

- o Surveys of the underground facility excavations, shafts, and boreholes referenced to readily identifiable surface features.
- o Description of the materials encountered.
- o Geologic maps and geologic cross section.
- o Locations and amounts of seepage.
- o Instrument locations, readings, analysis, and reports for in situ testing.
- o Technical specifications.
- o Sample extraction location maps.
- o Site Characterization Report.
- o Environmental Assessment.
- o Peer review documentation.
- o Test plans and procedures, and results thereof.
- o Data reduction, evaluations, analyses, and reports for:
 - Geomorphology.
 - Stratigraphy.
 - Tectonics.

9210260178 921013
PDR WASTE
WM-11 PDR

No.: 33-YMP-R Appendix E	Revision: 0	Date: December 15, 1988	Page: 2 of 7
-----------------------------	----------------	----------------------------	-----------------

- Seismicity.
- Geoengineering.
- Hydrology.
- Geochemistry.
- Climatology and Meteorology.
- o Environmental Impact Statement.
- o Environmental Report.

2.0 DESIGN RECORDS

- o Applicable codes and standards used in design.
- o Design drawings.
- o Design calculations and records of checks.
- o Approved design change requests.
- o Design deviations.
- o Design reports.
- o Design verification data.
- o Design specifications and amendments.
- o Safety analysis report.
- o Stress reports for code items.
- o Systems descriptions.
- o Systems process and instrumentation diagrams.
- o Technical analysis, evaluations, and reports.

3.0 PROCUREMENT RECORDS

- o Procurement specifications.
- o Purchase order including amendments.

4.0 MANUFACTURING RECORDS

- o Applicable code data reports.
- o As-built drawings and records (Note: As-built drawings and records shall correctly identify the installed condition of the item. The type of as-built drawings and records to be maintained shall be specified).

No.: 33-YMP-R Appendix E	Revision: 0	Date: December 15, 1988	Page: 3 of 7
-----------------------------	----------------	----------------------------	-----------------

- o Certificate of compliance.
- o Eddy-current examination final results.
- o Electrical control verification tests results.
- o Ferrite test results.
- o Heat treatment records.
- o Liquid penetrant examination final results.
- o Location of weld filler material.
- o Magnetic particle examination final results.
- o Major defect repair records.
- o Material properties records.
- o Nonconformance reports.
- o Performance test procedure and results records.
- o Pipe and fitting location report.
- o Pressure test (hydrostatic or pneumatic).
- o Radiographs (for in-service inspection applications).
- o Radiograph review records.
- o Ultrasonic examination final results.
- o Welding procedures.

5.0 INSTALLATION AND CONSTRUCTION RECORDS

5.1 RECEIVING AND STORAGE - NONCONFORMANCE REPORTS

5.2 CIVIL

- o Concrete cylinder test reports and charts.
- o Concrete design mix reports.
- o Concrete placement records.
- o Inspection reports for channel pressure tests.
- o Material property reports on containment liner and accessories.
- o Material property reports on metal containment shell and accessories.

No.:	Revision:	Date:	Page:
J33-YMP-R Appendix E	0	December 15, 1988	4 of 7

- o Material property reports on reinforcing steel.
- o Material property reports on reinforcing steel splice sleeve material.
- o Procedure for waste package vessel pressure proof test and leak rate tests and results.
- o Reports of high strength bolt torque testing.
- o Location and description of structural support systems.
- o Details, methods of emplacement, and location of seals used.

5.3 WELDING

- o Ferrite test results.
- o Heat treatment records.
- o Liquid penetrant test final results.
- o Material property records.
- o Magnetic particle test final results.
- o Major weld repair procedures and results.
- o Radiographs (for in-service inspection application).
- o Radiograph review records.
- o Weld location diagrams.
- o Weld procedures.

5.4 MECHANICAL

- o Cleaning procedures and results.
- o Code data reports.
- o Installed lifting and handling equipment procedures, inspection, and test data.
- o Lubrication procedures.
- o Material properties records.
- o Pipe and fitting location reports.
- o Pipe hanger and restraint data.
- o Pressure test results (hydrostatic or pneumatic).
- o Safety valve response test procedures.

5.5 ELECTRICAL AND INSTRUMENTATION AND CONTROL

- o Cable pulling tension data.
- o Cable separation data.
- o Cable splicing procedures.
- o Cable terminating procedures.
- o Certified cable test reports.
- o Relay test procedures.
- o Voltage breakdown test results.

5.6 GENERAL

- o As-built drawings and records.
- o Final inspection reports and releases.
- o Nonconformance reports.
- o Specifications and drawings.
- o Details of equipment, methods, progress, and sequence of work.
- o Construction problems.
- o Anomalous conditions encountered.

6.0 PRE-OPERATIONAL AND START-UP TEST RECORDS

- o Automatic emergency power source transfer procedures and results.
- o Final system adjustment data.
- o Pressure test results (hydrostatic or pneumatic).
- o Instrument alternating current (AC) systems and inverters test procedures and reports.
- o Offside power source energizing procedures and test reports.
- o Onsite emergency power source energizing procedure and test reports.
- o Pre-operational test procedures and results.

No.: 033-YMP-R Appendix E	Revision: 0	Date: December 15, 1988	Page: 6 of 7
------------------------------	----------------	----------------------------	-----------------

7.0 OPERATION RECORDS

- o Records and drawing changes that identify repository design modifications made to systems and equipment described in the Final Safety Analysis Reports.
- o Radioactive waste inventory, emplacement location, and transfer records.
- o Offsite environmental monitoring survey records.
- o Waste shipment records.
- o Repository radiation and contamination survey results.
- o Radiation exposure records for individuals entering radiation control areas.
- o Records of gaseous and liquid radioactive material released to the environment.
- o Records of transient or operational cycles for those repository components designed for a limited number of transients or cycles.
- o Training and qualification records for members of the repository operating staff.
- o In-service inspection records.
- o Records of reviews performed for changes made to procedures or equipment, or reviews of tests and experiments.
- o Meeting minutes of the Repository Nuclear Safety Committee and licensee nuclear review board.
- o Surveillance activities, inspections, and calibrations required by the technical documents.
- o Records of repository tests and experiments.
- o Changes made to Operating Procedures.
- o Sealed source leak-test results.
- o Records of annual physical inventory of all sealed source material.
- o Logs of repository operation.
- o Records and logs of maintenance activities, inspection, repair, and replacement of principal items of structures, systems, and components.
- o Operational, shift supervisor, and control-room logs.
- o Licensee event reports.
- o Fire protection records.

- o Nonconformance reports.
- o Repository equipment operations instructions.
- o Security plan and procedures.
- o Emergency plan and procedures.
- o Quality Assurance and Quality Control Manuals.
- o Records of activities required by the security plan and procedures.
- o Applicable records noted in other section of this appendix for any modification or new construction applicable to structures, systems, or components.
- o Evaluation of results of reportable safety concerns as required by regulations.
- o Annual environmental operating report.
- o Annual repository operating report.
- o Location and description of dewatering systems.