MORRISON KNUDSEN

WM Record File

WM Project
Docket No.

39

PDR ✓
LPDR

DOCUMENT TRANSMITTAL

WM DOCKET CONTROL CENTER

Distribution: D Smith
Gillen
Bell Dem
Sollenberger
Gnugnoli
(Return to WM, 623-SS) Haisfield

MORRISON-KNUDSEN Co., Inc.
P.O. BOX 9136
ALBUQUERQUE, NEW MEXICO 87119

Trans. No. MK-MP-0206

PROJECT: UMTRA
CLIENT: U.S. DEPARTMENT OF ENERGY

Contract No. 3050

Date 7/8/85

TO: Distribution

ATT:

APPROVED FOR CONSTRUCTION/FABRICATION	A
INFORMATION ONLY	B
APPROVAL ACTION REQUESTED	C
DISAPPROVAL-RESUBMIT	D
APPROVAL WITH COMMENTS	E

REMARKS Attached are (4) revised sections to the Remedial Action Inspection Plan. Please mark VOID or destroy any superceded copies of these sections.

TRANSMITTED ☒ HEREWITH ☐ UNDER SEPARATE COVER

DRAWING SPECIFICATION OR ITEM NUMBER	REV. NUMBER	NUMBER OF COPIES	TITLE OR DESCRIPTION	ACTION
RAIP-2	1	1	Testing and Inspection	
RAIP-4	1	1	Quality Assurance Records Control	
RAIP-5	1	1	Control of Measuring & Test Equipment	
RAIP-6	1	1	Nonconformance & Corrective Action	
P. Miller	copy #1		B. Bearden	copy #10
R. Hopkins	2		D. Gillen ←	11
J. Hammond	3		J. Jones	12
D. Summers	4		C. Hicks	13
J. Oldham	5		P. Cate	14
L. Farnes	6			
N. Wytiaz	7			
M. White	8			
S. Torres	9			

ADDRESSEE: SIGN & RETURN COPY NO. 2 TO ABOVE ADDRESS

MORRISON-KNUDSEN

BY: S. Sullivan

TITLE Document Control

THE ABOVE LISTED DOCUMENTS HAVE BEEN RECEIVED BY:

COMPANY NAME

NAME & TITLE

DATE REC'D.

COPY #1 (ORIG. TO ADDRESSEE) COPY #2 (RETURN COPY TO M-K)

MORRISON KNUDSEN

DOCUMENT TRANSMITTAL

MORRISON-KNUDSEN Co., Inc.
P.O. BOX 9136
ALBUQUERQUE, NEW MEXICO 87119

Trans. No. MX-MP-0206

PROJECT: UMTRA
CLIENT: U.S. DEPARTMENT OF ENERGY

Contract No. 3050

Date 7/8/85

TO: Distribution

ATT:

APPROVED FOR CONSTRUCTION/FABRICATION	A
INFORMATION ONLY	B
APPROVAL ACTION REQUESTED	C
DISAPPROVAL-RESUBMIT	D
APPROVAL WITH COMMENTS	E

REMARKS Attached are (4) revised sections to the Remedial Action Inspection Plan. Please mark VOID or destroy any superceded copies of these sections.

TRANSMITTED ☒ HEREWITH ☐ UNDER SEPARATE COVER

DRAWING SPECIFICATION OR ITEM NUMBER	REV. NUMBER	NUMBER OF COPIES	TITLE OR DESCRIPTION	ACTION
RAIP-2	1	1	Testing and Inspection	
RAIP-4	1	1	Quality Assurance Records Control	
RAIP-5	1	1	Control of Measuring & Test Equipment	
RAIP-6	1	1	Nonconformance & Corrective Action	
P. Miller	copy #1		B. Bearden	copy #10
R. Hopkins	2		D. Gillen	11
J. Hammond	3		J. Jones	12
D. Summers	4		C. Hicks	13
J. Oldham	5		P. Cate	14
L. Farnes	6			
N. Wytiaz	7			
M. White	8			
S. Torres	9			

ADDRESSEE: SIGN & RETURN COPY NO. 2 TO ABOVE ADDRESS

MORRISON-KNUDSEN

BY: S. Sullivan

TITLE Document Control

THE ABOVE LISTED DOCUMENTS HAVE BEEN RECEIVED BY:

COMPANY NAME

NAME & TITLE

DATE REC'D.

COPY #1 (ORIG. TO ADDRESSEE) COPY #2 (RETURN COPY) COPY #3

INDEX

APPROVAL

APPROVED: R E Hopkins 4/19/85
REMEDIAL ACTIONS CONTRACTOR UMTRA PROJECT DIRECTOR

APPROVED: Jack D. Hammond 4/19/85
REMEDIAL ACTIONS CONTRACTOR UMTRA DEPUTY PROJECT DIRECTOR

APPROVED: J Goldsmith 4-19-85
REMEDIAL ACTIONS CONTRACTOR UMTRA ENGINEERING MANAGER

APPROVED: Donald B. Sm 4/19/85
REMEDIAL ACTIONS CONTRACTOR UMTRA PROJECT QUALITY MANAGER

APPROVED: David M. Ball 4/25/85
for U.S. DEPARTMENT OF ENERGY, UMTRA PROJECT, PROJECT MANAGER

APPROVED: Theresa V. Hill 6/25/85
U.S. DEPARTMENT OF ENERGY, UMTRA PROJECT, CONTRACTING OFFICER

APPROVED: David M. Ball 4/25/84
U.S. DEPARTMENT OF ENERGY, UMTRA PROJECT, CONTRACTING OFFICER REPRESENTATIVE

PROCEDURE TITLE: TESTING AND INSPECTION

1.0 Purpose

1.1 To describe the methods by which the construction activities will be tested and inspected to verify compliance with the specification requirements.

2.0 Scope

2.1 This procedure covers the testing and inspection of all remedial action construction and radiological monitoring activities at Canonsburg, Pennsylvania. Types of tests, test frequencies and acceptability, documentation and reporting requirements are contained in this procedure. Procedures for performing the individual tests are per the applicable ASTM Standards or other referenced methods.

3.0 Definitions

NONE

4.0 Attachments

4.1 Density Test Data Sheet
4.2 Compaction Test Log
4.3 Deficient Test Log
4.4 Maximum Density Determination

5.0 References

5.1 10 CFR 50 APP. B, criteria 10, 11, 14
5.2 ANSI/ASME NQA-1 1979 with addenda A-81 through C-82
5.3 Contract DE-AC04-83AL18796
5.4 ASTM
5.5 AASHTO
5.6 H.S.&E. procedures/plans
5.7 DOE 5700.6A 8/13/81
5.8 DOE AL5700.6A 5/10/82
5.9 UMTRA Quality Assurance Plan Issue B 6/83
5.10 M-K Quality Assurance Program Plan

6.0 Procedures

6.1 Field Density Control

6.1.1 Soil density and moisture testing shall be in accordance with ASTM D-698, ASTM D-2049, ASTM D-1556 or ASTM D-2922 as applicable. Additionally, moisture control may be in accordance with AASHTO T217, using the speedy moisture meter. When the speedy moisture meter is used, a correlation sample will be oven dried for every tenth test. If the difference in results is greater than one-half of one percent, all test results obtained since the previous correlation test shall be reevaluated where possible. In any event, any test results which would be outside of the specification tolerances shall be retested.

6.1.2 The test frequency shall be a minimum of one test per 500 cubic yards of material placed. There shall be a minimum of two tests taken for each day that an appreciable amount of fill is placed (in excess of 150 cubic yards). A test may be taken at any time the inspector or superintendent determines the need to verify the compaction effort. To the extent possible, as allowed by placement methods and operations, there shall be a minimum of one test per lift The foundation subgrade or original ground shall be tested at a frequency of one test for each 1500 square yards of compacted ground. The foundation subgrade or original ground test frequency may be decreased to one test for each 4,000 square yards by the Site Quality Supervisor after the Subcontractor's performance record has been proven and documented.

6.1.3 In order to assure that the correct maximum dry density is being used to determine the relative compaction, a one point proctor test shall be performed. The material shall be as close to optimum moisture as possible and shall be compacted per the requirements of ASTMD-698. The frequency for performing this check point shall be established by the Site Supervisor dependant upon the nature of the material. A guide would be one for every five field density tests.

6.1.4 When the level of work activity is such that density tests are being performed throughout the day, the sand used for determining the volume of the test hole shall be calibrated twice a day. The calibration data shall be documented on the density test record.

6.1.5 Density test results shall be recorded and logged on the applicable forms which are a part of this procedure.

6.2 Gradation Testing

6.2.1 Gradation tests for the specified materials not including riprap shall be performed in accordance with ASTM C-33, or ASTM C136-82, as applicable. The frequency of testing shall be one test for every 2,000 cubic yards or fraction there of material placed. In the event that the total quantity of material is less than 2,000 cubic yards, there shall be a minimum of two tests obtained. Tests shall be performed whenever there is a change of material type. The test frequency shall be increased as necessary to ensure the quality of material.

6.2.2 Riprap gradation tests will be performed in accordance with ASTM C136-82 using screens, rulers or templates. Riprap shall also be tested in accordance with ASTM C88-76, ASTM C131-81 and ASTM C127-81 or ASTM C128-79. These tests shall be performed by a commercial testing laboratory. During the initial production run from the approved quarry, a two or three cubic yard sample obtained from the material which has passed the required tests shall be placed near the work area. This material will be referred to during the placement of the riprap for a visual verification that the material being delivered is the same as that which has been approved. Near the completion of the placing of the riprap another sample shall be tested. During construction there shall be one series of tests performed for every 5,000 cubic yards of riprap placed.

6.3 Soil Classification

Material which is delivered to the site from the North Strabane Township site shall be inspected continuously during placement to ensure that the proper classification of material is used.

Classification testing shall be a visual determination performed daily with periodic, at least twice weekly during periods of material usage, laboratory tests performed in accordance with ASTM-D2487-69.

6.4 Inspections

Daily inspections shall be performed during execution of the various work activities as follows:

6.4.1 Excavation

Inspections shall be performed to insure that the correct line and grades are reached. Where contaminated material is excavated, the inspector shall verify with the H.P. Supervisor that contaminated material has been removed.

6.4.2 Embankment fill and backfill

Inspections shall assure that the proper material is placed as designated on the drawings. The loose thickness of the lifts of material shall be verified periodically to ensure compliance to the specification requirements for the particular type of material. The inspections shall assure that the moisture requirements are maintained and that the moisture is uniform throughout the lift.

6.4.3 Radon Barrier

The placement of the radon barrier shall receive continuous inspection to verify lift thickness and elevations, moisture content, bentonite mixing, as required, and number of roller passes. The number of roller passes required is to be determined by the test fill. The moisture content will be determined as frequently as is required to assure the proper moisture content.

6.4.4 Riprap

The placement of the riprap cover shall receive continuous inspection to assure that proper placing techniques are employed to prevent degradation of the material due to improper handling and to assure that the distribution is uniform and that voids are kept as minimal as possible and to assure proper gradation. The inspection shall also verify the lift thickness and elevations.. Inspection may be provided at the material source if required to assure compliance to the specification requirements.

6.4.5 Health Physics and Environmental Safety

The H.P. activities shall be inspected a minimum of once weekly to assure compliance with the applicable H.P. procedures.

6.4.6. Receiving

6.4.6.1 Instrumentation which is received shall be inspected by the person responsible for using and maintaining the instrument. The instrument shall be inspected for damage, for correct operation and for proper calibration records.

The inclusion of the calibration records into the calibration system shall be evidence of satisfactory inspection results.

Equipment which does not meet the applicable requirements shall be returned to the supplier.

6.4.6.2 Materials which are supplied for permanent installation or which by the specifications require certifications will be verified by the project quality department as having met the specified requirements. The inspector shall sign or initial the Transmittal in the appropriate space indicating acceptance or describing the reason(s) for non-acceptance.

7.0 Records

7.1 Test and inspection records shall be reported the same day in which a test or inspection is performed. The inspection and test status shall be identified by charts, as-builts or by periodic status reports. The status will at all times be available in order to prevent inadvertently by passing an inspection point.

7.2 Test and inspection records shall contain as a minimum the following:

7.2.1 Items tested or inspected.

7.2.2 Date of test or inspection.

7.2.3 Tester, inspector or data recorder.

7.2.4 Type of test or inspection.

7.2.5 Results and acceptability, including the test or inspection acceptance criteria.

7.2.6 Instrument number used in performing the test or inspection.

7.2.7 Action taken in connection with any deviations noted.

7.2.8 Person evaluating test results, if different than person named in paragraph 7.2.3.

7.3 Test and inspection records shall be filed and maintained in accordance with "RAIP 4, Quality Assurance Records Control".

MORRISON-KNUDSEN COMPANY, INC.

REMEDIAL ACTION INSPECTION PLAN
UMTRA Project
Prime Contract No. DE-AC04-83AL18796

RAIP No. 4 Site: CAN	Rev. No. 1
Date March 12, 1984	
Designated Contact DON SUMMERS	

PROCEDURE TITLE: QUALITY ASSURANCE RECORDS CONTROL

1.0 Purpose

1.1 The purpose of this procedure is to define the program for control of Quality Assurance Records received or approved by MK.

2.0 Scope

2.1 This procedure describes the collection, storage and maintenance of Quality Assurance Records to assure that the required documentation is properly identified, indexed and maintained in accordance with the guidelines established by ANSI/ASME NQA-1.

2.2 Described, herein, is the program for control and filing of Quality Assurance Records received or prepared by M-K.

3.0 Definitions

3.1 Qua ity Assurance Records - Records which furnish documentary evidence of the quality of items and of activities affecting quality. A document is considered a quality assurance record when the document has been completed and has finished full processing. Working documents not yet designated as quality assurance records are not controlled by this procedure.

3.2 Permanent Quality Assurance Records - Those records which will be required for the site certification and licensing process.

3.3 Nonpermanent Quality Assurance Records - Those records required to show evidence that an activity was performed in accordance with applicable requirements but need not be retained for certification or licensing.

3.4 Q.A. Vault - The portion of Morrison-Knudsen's on-site Permanent Records Storage Facility which is controlled and operated in accordance with this procedure.

4.0 Attachments

4.1 Attachment 1 Form QP6-1 Records Log
4.2 Attachment 2 Form QP6-2 Records Log Instruction
4.3 Attachment 3 Form QP6-3 Records Storage In/Out Log

0104A

5.0 References

5.1 10 CFR 50, APP. B, criteria 6 & 17
5.2 ANSI/ASME NQA-1 1979 with addenda A-81 through C-82
5.3 Contract DE-AC04-83A118796
5.4 DOE 5700.6A 8/13/81
5.5 DOE AL5700.6A 5/10/82
5.6 UMTRA Quality Assurance Plan Issue B 6/83
5.7 M-K Quality Assurance Program Plan

6.0 Procedure

6.1 Responsibilities

6.1.1 The Site Quality Supervisor is responsible for:

6.1.1.1 Maintenance and control of the Q.A. Record Storage in accordance with this procedure;

6.1.1.2 Establishing a filing index system to facilitate orderly distribution, tracking, retrieval and retention of Quality Assurance Records;

6.1.1.3 Ensuring that the index system used includes sufficient identifying information to be compatible with the system used by the Project Quality Manager for final storage of records.

6.1.1.4 Assure that all quality records received are Q.A. reviewed prior to entry into record storage;

6.1.1.5 Periodic surveillances of quality records to assure that they are retrievable and controlled and are not deteriorating due to improper storage practices or rough handling.

6.1.1.6 Controlling access to the Q.A. Record Storage.

6.2 Filing and Control of Q.A. Records

6.2.1 Records shall be marked in red with the "original" stamp and entered in the Quality Assurance Records Log (Attachment 1) prior to filing.

6.2.2 A Q.A. Record Storage Master Index will be maintained which shows all classifications of records filed.

6.2.3 The Master Index will be updated as required using the Q.A. Records Log.

6.2.4 Records previously entered on the Master Index which have been transmitted shall remain in the index with an additional entry listing the transmittal number.

6.2.5 No record shall be removed from the Q.A. Record Storage without authorization from the Site Quality Supervisor/Designees.

6.2.5.1 A listing of documents removed from the Vault shall be maintained by use of the Record Storage In/Out Log. The log records the initials of the authorized person removing the document and the name of the individual requesting the document as well as the time and date in/out (Attachment 3).

6.2.6 Records shall be returned before the end of the shift unless special authorization is received.

6.3 Authorized Admittance

6.3.1 Unlimited access to the Q.A. Vault is granted to the Site Quality Supervisor/Designee and that person designated as the Q.A. Records Clerk. The names or titles of all authorized individuals and designees will be listed outside the vault.

6.3.1.1 Personnel with regular business in the Q.A. Vault may have limited access on a case-by-case basis by use of a controlled set of keys issued by Site Quality Supervisor/Designee or Q.A. Records Clerk. These personnel shall not be allowed to remove any Quality Records from the Q.A. Vault.

6.3.2 The Permanent Records Storage Facility and the Q.A. Vault shall be locked to prevent unauthorized entry when assigned personnel are not in attendance.

6.4 Alternate Storage

6.4.1 Dependent upon the scope of the work and the nature of the ensuing documentation, storage may be by dual facilities meeting the criteria of NQA-1-1979, supplement 17S-1, Paragraph 4.4.2.

7.0 Records

7.1 Records which are generated at the site of the remedial action shall be handled in accordance with this procedure. Final Records shall be transmitted to the Project Quality Department in Albuquerque at the completion of different work activities.

7.1.1 Copies of interim records will be transmitted to the Project Quality Department in Albuquerque periodically. The intervals shall be determined by the Project Quality Manager on a case by case basis dependent upon the work activity and the quantity of records being generated.

FORM Q P6-1

ATTACHMENT 1
QUALITY ASSURANCE RECORDS LOG

① Page _____

ENTRY NO. ②	DATE ⑥	ENTRY DESCRIPTION ③	MASTER INDEX NUMBER ④	INDEX NUMBER BY ⑤	REMARKS ⑦

ATTACHMENT 2

INSTRUCTIONS FOR MAINTAINING THE QUALITY ASSURANCE RECORDS LOG

#1 — Assign consecutive page numbers.

#2 — Assign consecutive number to each document or set of documents by person so designated. Then each document is stamped with the QA Review Stamp and the QA Entry Number is entered on the stamp.

#3 — Record specific document name.

#4 — Record index number as assigned on the Q.A. Vault Master Index.

#5 — Initials of person making entry are recorded.

At this point the record/records are given to the Q.A. Manager/Designee for review and initials placed on the QA Review Stamp. Then the record/records are returned to the person designated to complete the Q.A. Records Log and file in the Vault.

#6 — Date of Vault entry recorded.

#7 — Record any additional references or notes applicable, if any.

ATTACHMENT 3

VAULT IN/OUT LOG

ITEM	DATE OUT	TIME OUT	OUT BY INITIAL	OUT FOR NAME	DATE IN	TIME IN

PROCEDURE TITLE: CONTROL OF MEASURING AND TEST EQUIPMENT

1.0 Purpose

1.1 To define the methods used for the maintenance and control of calibrated measuring and test equipment at remedial action sites and vicinity property locations.

2.0 Scope

2.1 This procedure shall apply to all Quality Class I equipment. The degree of application for other than Quality Class I equipment shall be determined by the Quality Department on a case by case basis.

3.0 Definitions

3.1 NBS-National Bureau of Standards

3.2 Functional check--A documented comparison of reading between equivalent tools.

3.3 Quality Class I:

Activities, operations material or equipment which is required to meet NRC licensing requirement.

Examples:
1. Radiological monitoring to verify the remedial action(s).
2. Testing of the encapsulation cell.
3. Cover for contaminated material not stabilized into encapsulation cell.
4. Other site erosion protection features.

3.4 Quality Class II:

Activities, operations, material or equipment which is a contractual requirement but is not required to meet the licensing requirement.

Examples:
1. Personnel exposure records
2. Daily air sampling

3.5 Quality Class III:

Good, commercial practice. No specified standards or reporting requirements, only standard operating procedures.

Examples: 1. Equipment maintenance

2. Concrete for convenience, i.e., non-permanent walkways

4.0 Attachments

4.1 Form QP5-1 Equipment Calibration Record
4.2 Form QP5-2 Equipment Calibration Identification List

5.0 References

5.1 10 CFR 50, APP. B, criteria 1
5.2 ANSI/ASME NQA-1 1979 with addendas A-81 through C-82
5.3 Contract DE-AC04-83AL18796
5.4 DOE 5700.6A 8/13/81
5.5 DOE AL5700.6A 5/10/82
5.6 UMTRA Quality Assurance Plan Issue B 6/83
5.7 M-K Quality Assurance Program Plan

6.0 Program

6.1 General

6.1.1 Calibration controls are not required for standard, off-the-shelf measuring equipment that is not adjustable and is used for indication only such as: rulers, scales, tape measures, etc...

6.1.2 Measuring and test equipment is calibrated against equipment having a known valid relationship to NBS or other recognized standard.

6.1.3 When the calibration relationship cannot be related to the NBS or other recognized standard, an approved engineering or manufacturer's calibration procedure may be used. The basis for the use of alternative calibration methods shall be documented and approved by the Project Quality Manager or designee.

6.2 Equipment Identification List

6.2.1 Each calibrated instrument is assigned a unique project identification number and entered into the Equipment Identification List (Form QP 5-2).

6.2.2 Equipment that is lost, stolen, or damaged beyond repair is removed from the list.

6.2.3 The Quality Department updates and distributes this list monthly.

6.3 Equipment Calibration Record

6.3.1 An equipment Calibration Record (Form QP 5-1) is maintained for each calibrated tool shown on the Equipment Identification List and remains on file regardless of the current status of the equipment (lost, stolen, etc...).

6.3.2 Related calibration records are maintained and filed with each Equipment Calibration Record and shall include as a minimum:

6.3.2.1 Identification of person or laboratory performing the calibration.

6.3.2.2 Results of the calibration (accuracy prior to adjustment, repairs performed, etc...).

6.3.2.3 Description of/or reference to the calibration procedure used.

6.3.2.4 Required accuracy.

6.3.2.5 Statement of acceptability.

6.4 Calibrated Labels

6.4.1 Each calibrated piece of equipment shall have a label attached which contains the following information as a minimum:

6.4.1.1 Project Equipment Identification Number.

6.4.1.2 Date last calibrated.

6.4.1.3 Calibration due date.

6.4.2 Labels that deteriorate to the point of illegibility are to be replaced. Calibration dates are obtained from the Equipment Calibration Record.

6.4.3 Equipment to which labels cannot be applied shall be uniquely marked in a permanent manner, (i.e. stamping or engraving). These I.D. marks shall be traceable to the calibration records.

6.6 Calibration Services

6.6.1 Suppliers of calibration services for Quality Class I equipment are surveyed and approved in accordance with the Morrison-Knudsen Quality Assurance Manual or QAPP and appear on the M-K UMTRA Quality Department Approved Vendors List.

6.6.2 Suppliers of calibration services for Quality Class II and III items are surveyed to levels commensurate with the intended end use of the equipment.

6.6.3 If new equipment is received which has been calibrated by the manufacturer, and such calibration is traceable to NBS, that calibration will be used for the initial calibration period.

6.6.4 Purchase orders to suppliers of calibration services contain instructions to notify Morrison-Knudsen by telephone when discrepancies are noted during calibration.

6.7 Functional Checks

6.7.1 If a calibrated tool has not been issued since its last valid calibration, the Project Quality Manager may authorize use of that tool for one calibration period provided:

6.7.1.1 A functional check is performed and the check indicates proper operation.

6.7.1.2 The additional calibration period is documented on the Equipment Calibration Record.

6.7.2 Tools and equipment which are not adjustable (i.e. proctor molds, sandcones, etc.) will be checked against gage blocks or by volume measurements. The frequency of such checks shall be determined based upon the usage of the tools.

6.8 Discrepancies

6.8.1 When calibrated tools are found to be inaccurate while in use or during the calibration process, the Calibrated Equipment Issue Record is used to determine previous usage of the tool since the last valid calibration.

6.8.2 The discrepant equipment is withdrawn from use and labeled. The following steps are then performed.

6.8.3 Items or work activities which were monitored, tested or inspected with the inaccurate equipment will be rechecked.

6.8.4 Items or activities which cannot be rechecked will be identified on a non-conformance report in accordance with "QAPP-8 Non-Conformance and Corrective Action."

6.9 Recall

6.9.1 A system will be established by the Site Quality Department using a tickler file which will be checked daily. This file will give notification of certification expiration 30 days prior to the expiration date.

7.0 Records

7.1 Calibration records as defined by this procedure are filed and controlled in accordance with "RAIP-4 Quality Assurance Records Control."

MORRISON-KNUDSEN COMPANY, INC.

Form QP 5-1

EQUIPMENT CALIBRATION RECORD

Project No.		
Instrument Name	Range & Accuracy	Project ID No.
Manufacturer	Cost	Calibration Frequency
Model No. / Serial No.	Assigned To	

DATE		CALIBRATED BY	CALIBRATION STD	CALIBRATION PROCEDURE/ REV.	CALIBRATION TOLERANCE	AS FOUND CONDITION IF NOT IN TOLERANCE
CALIBRATED	NEXT CALIBRATION					

MORRISON-KNUDSEN COMPANY, INC.

Form QP 5-2

EQUIPMENT IDENTIFICATION LIST

Project No.

PROJECT IDENTIFICATION NUMBER	EQUIPMENT DESCRIPTION	RANGE	SERIAL NUMBER	DATE CALIBRATED	CALIBRATION FREQUENCY

MORRISON-KNUDSEN COMPANY, INC.

REMEDIAL ACTION INSPECTION PLAN
UMTRA Project
Prime Contract No. DE-AC04-83AL18796

RAIP No. 6	Rev. No.
Site: CAN	1
Date: April 5, 1985	
Designated Contact: DON SUMMERS	

PROCEDURE TITLE: NONCONFORMANCE AND CORRECTIVE ACTION

1.0 Purpose

1.1 The purpose of this procedure is to define the method of identifying, documenting and correcting non-conforming conditions for permanent materials or installations.

2.0 Scope

2.1 The scope of this section covers the documentation and disposition requirements of nonconforming materials and items. This section also establishes the requirements for a corrective action program to assure that the cause of conditions adverse to quality and are determined and corrected to preclude repetition.

3.0 Definition

3.1 NCR - Nonconformance Report
3.2 CAR - Corrective Action Request
3.3 NONCONFORMANCE: A deficiency in characteristic, documentation, or procedure that renders the quality or an item or activity unacceptable or indeterminate.

4.0 Attachments

4.1 Form QP8-1 NCR
4.2 Form QP8-2 NCR 10G
4.3 Form QP8-3 CAR
4.4 Form QP8-4 CAR 10G

5.0 References

5.1 10 CFR 50, APP. B, criteria 15 and 16
5.2 ANSI/ASME NQA-1 1979 with addenda A-81 through C-82
5.3 Contract DE-AC04-83AL18796
5.4 DOE 5700.6A 8/13/81
5.5 DOE AL5700.6A 5/10/82
5.6 UMTRA Quality Assurance Plan Issue B 6/83
5.7 M-K Quality Assurance Program Plan
5.8 10CFR21 Reporting of Defects and Non Compliance

6.0 Program

6.1 Nonconformance Reports

6.1.1. Within the scope of the definition as stated in 2.3 above, a nonconformance systems is further defined herein:

Nonconformances are those deviations from plans, specifications or procedures which cannot be corrected procedurally or which are direct violations of approved quality procedures. Examples are:

6.1.1.1 Failing density or gradation tests are not considered to be nonconformances if they are corrected prior to the placement of additional materials which would make the area or item inaccessable for rework.

6.1.1.2 Placing material which is known to be outside the specification limits is a nonconformance.

6.1.1.3 Materials or equipment which is temporary will be covered by routine surveillance reports and are exempt from the requirements of this procedure, ie. temporary drainage, haul roads, generators, temporary fences.

6.1.1.4 Instruments found to be out of calibration and processed in accordance with approved procedures do not require a nonconformance procedure.

6.1.2 Permanent materials are those materials which will become a part of the licensed site, i.e. the permanent fence, the materials for the encapsulation cell or permanent drainage.

6.2.1 Nonconformance Reports are initiated by the Site Quality Supervisor or Project Quality Office for any condition which has been determined to be a nonconformance in accordance with the specified requirements. The Nonconformance Report identifies the nonconforming material, item or service, describes the nonconformance, and provides for verification of approved disposition implementation.

6.2.1.1 As a minimum the site manager and the affected parties will receive copies of the nonconformance report.

6.2.2 The appropriate Department Manager/Designee, (i.e., HS&E, Engineering, Design, etc.) reviews the NCR and adds a proposed disposition. Personnel providing evaluations shall be of the appropriate discipline and knowledgeable in that discipline.

6.2.3 The QA/QC Supervisor reviews the proposed disposition and if acceptable, documents his approval on the NCR and assigns an identification number which is obtained from the Nonconformance Log. The QA/QC Supervisor obtains the concurrence of the Architect Engineer and DOE Contracting Officer Representative as appropriate for "use as is" dispositions.

6.2.4 Status of NCR's are maintained by the QA/QC Supervisor.

6.2.5 Nonconforming permanent materials/items are documented by an NCR and identified by the QA/QC Supervisor.

The method of identification shall not adversely affect the end use of the items.

6.2.6 When segregation is impossible or impractical, other methods shall be employed to preclude inadvertent use of a nonconforming item.

6.2.7 The QA/QC Supervisor provides the approved NCR to the organization assigned responsibility for implementing the approved disposition. The responsible organization implements the approved disposition. Repairs shall be performed in accordance with the approved disposition which shall be in accordance with the original acceptance criteria or established alternate acceptance criteria.

6.2.8 The QA/QC Supervisor verifies implementation of the disposition and assures that the material or item is reinspected for acceptance in accordance with the approved disposition and documents his acceptance on the NCR.

6.2.9 After verification that the approved disposition has been completed and the material or item is acceptable, the QA/QC Supervisor indicates clearance on the Nonconformance Report Log, thereby releasing the material/item for use.

6.2.10 The QA/QC Supervisor retains a copy of the completed NCR for nonconformance trending and includes the NCR in the QA Record Files.

6.2.11 Under no circumstances will dispositions of nonconforming items result in items not complying with applicable requirements of codes and specifications. All technical justification for acceptability shall be documented

6.3 Corrective Action

6.3.1 The QA/QC Supervisor is responsible for collecting and organizing nonconformance accountability data to identify trends of conditions adverse to quality and to specify and evaluate the effectiveness of actions taken to prevent recurrence of the nonconforming condition.

6.3.2 The QA/QC Supervisor evaluates nonconforming conditions on a quarterly basis (or more frequently) and documents his review in writing to the Project Quality Manager. In conducting his evaluation, he considers the following:

6.2.2.1 Number and type of nonconforming conditions committed by each job function;

6.2.2.2 Volume of work handled by each job function and the number of personnel involved;

6.2.2.3 Any other characteristics deemed relative.

6.3.3 Recurrent or significant conditions adverse to quality and recommendations for corrective action are reported on the Corrective Action Request (CAR) to responsible departmental management personnel by the Project Quality Manager. The CAR establishes a due date for a response based on the severity of the situation. The Project Quality Manager shall maintain a log of CAR's and their required response dates and shall inform the Project Director in writing of any delinquent response or ineffective responses.

6.3.4 Responses to CAR's are developed by the responsible departmental management and are reviewed for acceptance by the Project Quality Manager. Responses shall include identification of the cause of the condition, action taken to correct the condition, actions taken to preclude repetition and scheduled date of implementation of the corrective actions.

6.3.5 Follow-up shall be conducted to assure that proposed corrective actions have been implemented and have achieved the desired results. This follow-up shall occur within 30 days after the schedule of implementation date, and shall be documented on the CAR.

6.4 Subcontractor Corrective Action

6.4.1 Subcontractors shall be required to report conditions adverse to quality to the QA/QC Supervisor.

6.4.2 Subcontractors shall promptly identify and correct any conditions adverse to quality. In the case of a significant condition, the cause of the condition shall be determined, documented, and corrective action taken which will preclude recurrence of the condition. Documented corrective action shall be transmitted to the QA/QC Supervisor.

6.4.3 The QA/QC Supervisor shall be responsible for effective follow-up action to verify acceptable implementation of subcontractor's corrective action.

7.0 Records

7.1 All QA records required by this procedure shall be stored in accordance with "RAIP 4 QA Records Control".

MORRISON KNUDSEN

NONCONFORMANCE REPORT

1. Page ____ of ____ | 2. No.

Sketch Attached: Yes ☐ No ☐ | 3. Date

Project No.

4. Item Location Area/Bldg. | 5. System Rev. | 6. Item Name

7. Inspection Criteria — Document Number & Title

Dwg.☐ Spec.☐ Other☐ (Explain)

8. Source: Engrg.☐ Constr.☐ Other☐ (Explain) Name | 9. P.O. No.

Vendor☐ Subcontractor☐

10. No.	11. Nonconformance (Discrepancy) Description: (List serial numbers where applicable)

12. NCR Prepared by: _____ Date _____ | Concurrence: PQE _____ Date _____

13. Field Disposition/ Recommendation: Rework☐ Repair☐ Reject☐ Route to Client☐ Route to Design Agency☐ Route to MFG.☐

14. Field Disposition By: _____ Date _____ | Approval of Field Disposition: Date

PE _____ _____

PQE _____ _____

15. Client/Design Agency Disposition: Repair☐ Use As Is☐ Reject☐ See Below☐ Rework☐

Approved

Design Agency _____ Date _____ Client _____ Date _____

16. Approval of Client/MFG./Design Agency Disposition: Date

PE _____ _____

PQE _____ _____

Auth. Insp. _____ _____

17. Reinspection Date

Accept☐ _____ _____

Reject☐ _____ _____

Auth. Insp. _____ _____

FORM QP 8-1

MORRISON KNUDSEN

NONCONFORMANCE REPORT LOG

PROJECT NO. _____

NCR NO.	ORIG. DATE / CLOSE DATE	PREPARED BY / CLOSED BY	NONCONFORMANCE DESCRIPTION/REMARKS	NCR TAG NO.	SOURCE	STATUS			
						ROUTE	XMTD	REPLY	DISP.

PAGE

MORRISON KNUDSEN

CORRECTIVE ACTION REQUEST

Project	Contract No.		Page of C.A.R. No.
Issued To	Unit No.		Reply Due Date
Department			

CONDITION DESCRIPTION

INITIATED BY ►	Signature	Title	Date
APPROVED BY ►	Signature	Title	Date

CAUSE AND CORRECTIVE ACTION

ACTION TAKEN TO PRECLUDE RECURRENCE

PREPARED BY ►	Signature	Title	Date
AUTHORIZED BY ►	Signature	Title	Date

CORRECTIVE ACTION

VERIFIED BY ►	Signature	Title	Date
FOLLOW-UP ►	Signature	Title	Date
REVIEWED BY ►	Signature	Title	Date

FORM QP 8-3

MORRISON KNUDSEN

CORRECTIVE ACTION REQUEST LOG

PROJECT:	JOB NO.:	DATE:	PAGE OF

CAR NO.	CONDITION DESCRIPTION	REFERRED TO	DATE	REPLY REQUESTED DATE	REPLY RECEIVED DATE	ACCEPTED QAE	ACCEPTED DATE	QA FILE NO.

REMARKS (IDENTIFY BY REQUEST NO.)

FORM QP 8-4