

OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT
YUCCA MOUNTAIN QUALITY ASSURANCE DIVISION
QUALITY ASSURANCE SURVEILLANCE REPORT
OF
THE MANAGEMENT AND OPERATING CONTRACTOR
SURVEILLANCE YMP-SR-93-044
CONDUCTED IN LAS VEGAS, NEVADA AND THE YUCCA MOUNTAIN SITE
SEPTEMBER 16 THROUGH 23, 1993

ACTIVITIES SURVEILLED:

OVERVIEW INSPECTION/SURVEILLANCE PROGRAM BY THE
MANAGEMENT AND OPERATING CONTRACTOR
OF THE FIRST-LINE INSPECTION PERFORMED BY
REYNOLDS ELECTRICAL AND ENGINEERING COMPANY, INC.
SPECIFIC TO THE EXPLORATORY STUDIES FACILITY

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Approved By: *Donald G. Horton* Date: *10/4/93*
Donald G. Horton
Director
Office of Quality Assurance

1.0 EXECUTIVE SUMMARY

This surveillance was conducted to verify compliance of the Management and Operating Contractor (M&O) line procedures to the Quality Assurance Requirements and Description (QARD) requirements specific to Section 10, "Inspection," and to monitor/evaluate the effectiveness of the M&O's implementation of those procedures as the Architect/Engineer (A/E) responsible for Title III final acceptance specific to the Exploratory Studies Facility (ESF). As an overview inspection/surveillance agency to the first line inspection program by Reynolds Electrical and Engineering company, Inc. (REECO), it was determined that the M&O was in compliance with the requirements and effective in their implementation. However, in the review of line procedures, three observations were noted which, if revised as suggested, might enhance effectiveness. A description of the observations is included in Paragraph 5.3 and recommendations for each is included in Paragraph 6.0.

2.0 SCOPE

Surveillance 93-044 was conducted at the M&O facilities in Las Vegas, Nevada and the ESF at the Yucca Mountain Site to verify compliance to the requirements of Implementing Line Procedures NLP-10-1, Revision 1, "M&O Overview Inspection Procedure," QLP-2-1, Revision 2, "Certification of QC Inspectors," and MGP-15-1, Revision 0, "Control of Nonconforming Items," and to evaluate the effectiveness of the M&O in implementing those requirements as an oversight inspection agency monitoring the first line inspections by REECO and for Title III acceptance.

3.0 SURVEILLANCE TEAM

Ken M. Wolverton, Surveillance Team Leader, Quality Assurance Technical Support Services (QATSS)

John R. Doyle, Surveillance Team Member, QATSS

4.0 PERSONNEL CONTACTED

Jack A. Jackson, Nevada Site Quality Assurance Manager, M&O

Ronald P. Ruth, Construction Quality Assurance Manager, M&O

David Sestak, Quality Assurance Engineer, M&O

William J. Waggoner, Level II Inspector, M&O

Freddie M. Beasom, Level II Inspector, M&O

Judy B. Justice, Training Coordinator, M&O

William J. Glasser, Quality Assurance Manager, REECO

5.0 SURVEILLANCE RESULTS

During this surveillance, procedures were reviewed for proper compliance with the requirements of the QARD DOE/RW-0333P, Revision 0. Training files and inspection records were reviewed for procedural compliance, and oversight inspection activities were monitored in the ESF for effective implementation during the week of September 21, 1993. Procedures and records reviewed specific to oversight inspections performed and the training/qualification files are listed in Paragraph 5.1 of this report. Records reviewed were found to be in compliance with the procedure requirements.

On September 21, 1993, the surveillance team monitored the overview inspection activities of William J. Waggoner in the ESF specific to the grouting of a rockbolt on "Ring-15." The inspector was observed monitoring the mixing of the grout batch for this specific rockbolt, checking of the grout temperature (see Paragraph 5.2), and observing the grouting operation of the rockbolt for grout return. It should be noted that all of the records and activities surveilled were on in-process work. The M&O Construction Quality Assurance (QA) Manager pointed out that no work packages specific to the ESF have been turned over for Title III acceptance from REECo. Although there were three observations which are noted in Paragraph 5.3, the results of the surveillance indicate that the M&O is complying with the requirements of the implementing line procedures for overview inspection/surveillance, and are effective in their implementation with respect to REECo's first line inspection program.

5.1 DOCUMENTATION REVIEWED

1. M&O Inspection Report No. 0101
Subject: Sampling and mixing of tracer water for use in the ESF Starter Tunnel.
Generated by: Fred Beasom, Level II Inspector
Date: 8/6/93
2. M&O Inspection Report No. 0102
Subject: Shotcreting ESF North Starter Tunnel.
Generated by: Fred Beasom, Level II Inspector
Date: 8/13/93
3. M&O Inspection Report No. 0103
Subject: Repair and construction of ESF North Portal Pad drainage channel.
Generated by: Joe Hayes, Level II Inspector
Date: 8/13/93

4. **Nonconformance Report No. 93-041**
Subject: Temperature for the curing compound in storage exceeded Manufacturer's requirements.
5. **M&O Inspection Report No. 0104**
Subject: Sampling and mixing of tracer water for use in the ESF Starter Tunnel.
Generated by: Fred Beasom, Level II Inspector
Date: 8/13/93
6. **M&O Inspection Report No. 0106**
Subject: Shotcreting of ESF North Portal Starter Tunnel.
Generated by: Joe Hayes, Level II Inspector
Date: 8/20/93
7. **Nonconformance Report No. 93-043**
Subject: Curing of 18" x 18" test panel not in accordance with specification requirements.
8. **Nonconformance Report No. 93-044**
Subject: No receiving inspection performed on three bags of shotcrete prior to placement in the ESF Starter Tunnel.
9. **M&O Inspection Report No. 0107**
Subject: Repair and construction of ESF North Portal Pad drainage channel.
Generated by: Joe Hayes, Level II Inspector
Date: 8/20/93
10. **M&O Inspection Report No. 0108**
Subject: Drilling and blasting of ESF North Portal Starter Tunnel Blast plans NP-CB/SB/NB-012.
Generated by: Fred Beasom, Level II Inspector
Date: 8/19/93
11. **M&O Inspection Report No. 0116**
Subject: Installation and grouting of pattern cement grouted rockbolts in the ESF North Portal Starter Tunnel.
Generated by: Bill Waggoner, Level II Inspector
Date: 9/10/93

12. M&O Inspection Report No. 0117
Subject: Shotcreting of ESF North Portal Starter Tunnel.
Generated by: Bill Waggoner, Level II Inspector
Date: 9/17/93
13. Nonconformance Report No. 93-033 (in process)
Subject: REECo Construction initiated the shotcrete process without required inspection by REECo Quality Control of surfaces, reinforcement and embedded items for compliance to drawings.
14. Training files, which consisted of certifications, resumes, examinations and their results, job descriptions and reading assignments, were verified for the following individuals and found to be acceptable:
 - (a) W. J. Waggoner, Level II
 - (b) J. Hayes, Level II
 - (c) F. M. Beasom, Level II
 - (d) B. R. Justice, Level III/Quality Engineering Manager
 - (e) D. E. Sestak, Quality Assurance Engineer/Scientist I

5.2 EQUIPMENT MONITORED

REECo Thermometer Y-10673
Calibration due date: 12/3/93

5.3 OBSERVATIONS

Observation 1

During the review of Implementing Line Procedure NLP-10-1, Revision 1, "M&O Overview Inspection," it was noticed that the M&O did not address the establishment of hold points or witness points as detailed in the QARD, Section 10.2.3. The M&O's response to this concern was that they didn't intend to establish these inspection points because REECo was already establishing them on the first-line inspection.

Observation 2

As was mentioned earlier, this surveillance only covered Title III inspection activities on in-process work because REECo is not ready to turn work packages over for acceptance. Hence, the M&O has no procedures in place to begin Title III Inspection for Acceptance, should it start to occur.

Observation 3

Paragraph 6.0 of NLP-10-1, Revision 1 states, "Documents generated as a result of this procedure shall be collected and maintained in accordance with AP-1.18Q, Records Management: Las Vegas Record Source Responsibilities." The M&O Quality Assurance Procedure (QAP)-17-1, "Record Source Responsibilities for QA Records" should include all of the applicable requirements of the project level procedure and should be referenced as the controlling procedure to the M&O. The Administrative Procedures-Quality (APQ) are project level while QAP-17-1 is line level specific to M&O operations and may contain specific information to M&O record sources which is not addressed in the APQ.

6.0 RECOMMENDATIONS

- 6.1 (Reference Observation 1) Since the M&O is the A/E for the ESF and responsible for Title III acceptance, it would behoove them to establish a process or avenue to allow them to place witness or hold points on the first line inspection or construction activities by REECo specific to the ESF. This process should be detailed in the procedure NLP-10-1, "M&O Overview Inspection."
- 6.2 (Reference Observation 2) The M&O should expedite the preparation of procedures to control the Title III final acceptance process to avoid confusion at a later date should REECo begin turning over completed work packages.
- 6.3 (Reference Observation 3) Revise NLP-10-1, Paragraph 6.0 to state that the records generated shall be collected and maintained in accordance with QAP-17-1 and assure that this procedure contains all of the requirements of AP-1.18Q specific to the M&O.

7.0 ATTACHMENTS

None