



DEPARTMENT OF ENERGY
Office of Civilian Radioactive Waste Management
Office of Geologic Disposal
Yucca Mountain Site Characterization Project Office
P.O. Box 98608
Las Vegas, NV 89193-8608

WBS 1.2.11
QA

JAN 20 1994

Robert F. Pritchett
Technical Project Officer
for Yucca Mountain
Site Characterization Project
Reynolds Electrical & Engineering Co., Inc.
P.O. Box 98521
Las Vegas, NV 89193-8521

ISSUANCE OF SURVEILLANCE RECORD YMP-SR-94-017 RESULTING FROM YUCCA MOUNTAIN QUALITY ASSURANCE DIVISION (YMQAD) SURVEILLANCE OF REYNOLDS ELECTRICAL & ENGINEERING CO., INC. (REECO) FACILITIES IN MERCURY, NEVADA (SCP: N/A)

Enclosed is the record of Surveillance YMP-SR-94-017 conducted by the YMQAD at the REECO facilities in Mercury, Nevada, on December 17, 1993.

The purpose of the surveillance was to verify that calibrations are being performed adequately and accurately in accordance with MC 10.0, Revision 1, "Measuring and Test Equipment," and that results are traceable to national standards.

This surveillance is considered completed and closed as of the date of this letter. A response to this surveillance record and any documented recommendations is not required.

If you have any questions, please contact either Robert B. Constable at 794-7945 or Steven P. Nolan at 794-7731.

Richard E. Spence, Director
Yucca Mountain Quality Assurance Division

YMQAD:RBC-1664

Enclosure:
Surveillance Record YMP-SR-94-017

250101

9401310403 940120
PDR WASTE PDR
WM-11

Add: Ken Hooker
NH03 1/1
WM-11
102.7

JAN 20 1994

Robert F. Pritchett

-2-

cc w/encl:

D. A. Dreyfus, HQ (RW-1) FORS
R. W. Clark, HQ (RW-3.1) FORS
J. W. Gilray, NRC, Las Vegas, NV
K. R. Hooks, NRC, Washington, DC
R. R. Loux, NWPO, Carson City, NV
Cyril Schank, Churchill County Commission, Fallon, NV
D. A. Bechtel, Clark County Comprehensive, Las Vegas, NV
J. D. Hoffman, Esmeralda County, Goldfield, NV
Eureka County Board of Commissioners,
Yucca Mountain Information Office, Eureka, NV
Lander County Board of Commissioner, Battle Mountain, NV
Jason Pitts, Lincoln County, Pioche, NV
V. E. Poe, Mineral County, Hawthorne, NV
P. A. Niedzielski-Eichner, Nye County, Chantilly, VA
L. W. Bradshaw, Nye County, Tonopah, NV
William Offutt, Nye County, Tonopah, NV
Florindo Mariani, White Pine County, Ely, NV
B. R. Mettam, County of Inyo, Independence, CA
Mifflin and Associates, Las Vegas, NV
L. L. Bolivar, LANL, Los Alamos, NM
R. E. Monks, LLNL, Livermore, CA
R. P. Ruth, M&O/Duke, Las Vegas, NV
W. J. Glasser, PSDO/REECO, Las Vegas, NV
K. J. Tunney, RSN, Las Vegas, NV
R. R. Richards, SNL, 6319, Albuquerque, NM
T. H. Chaney, USGS, Denver, CO
J. B. Harper, SAIC, Las Vegas, NV
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C. J. Henkel, EEI, Las Vegas, NV
R. M. Nelson, Jr., YMP, NV

OFFICE OF
RADIOACTIVE WASTE MANAGEMENT
U.S. DEPARTMENT OF ENERGY
WASHINGTON, D.C.

QUALITY ASSURANCE SURVEILLANCE RECORD

SURVEILLANCE DATA

¹ORGANIZATION/LOCATION:
Reynolds Electrical and
Engineering Company (REECO)
- Mercury, NV.

²SUBJECT:
Measuring and Test Equipment (M&TE)

³DATE: 12/17/93

⁴SURVEILLANCE OBJECTIVE:
Verify procedural implementation and compliance to MC 10.0, Revision 1, "Measuring and Test Equipment."

⁵SURVEILLANCE SCOPE:
To review and verify procedural compliance to the requirements of the REECO
line procedure MC-10.0, Revision 1 with regard to the maintenance, control,
use and calibration of M&TEs.

⁶SURVEILLANCE TEAM:
Team Leader:

S. P. Nolan

Additional Team Members:

F. H. Lofftus

⁷PREPARED BY:

Steven P. Nolan

Surveillance Team Leader

12.14.93

Date

⁸CONCURRENCE:

AC Kenna

QA Division Director

12.16.93

Date

SURVEILLANCE RESULTS

⁹BASIS OF EVALUATION/DESCRIPTION OF OBSERVATIONS:

See page 2.

¹⁰SURVEILLANCE CONCLUSIONS:

See page 4.

¹¹COMPLETED BY:

Steven P. Nolan

Surveillance Team Leader

1.18.94

Date

¹²APPROVED BY:

AC Kenna

QA Division Director

1/20/94

Date

Block⁹

On December 16, 1993 a surveillance was performed of Reynolds Electrical and Engineering Company (REECo) at the Mercury, Nevada Calibration Facility to verify that calibrations are being performed to approved and documented procedure, MC 10.0, Revision 1, and that the results are traceable to national standards.

The following personnel were contacted during this surveillance:

Gerry Erickson, REECo/M&TE Laboratory, Manager
Joy Peck, REECo/M&TE Laboratory, Secretary

Aspects Reviewed:

- (A) M&TEs shall be traceable to the National Institute of Science and Technology. Records selected for review are listed below:

<u>Standards</u>	<u>Description</u>	<u>Mfg</u>	<u>NIST Test No.</u>
141	Microbalance Electronic	Mettler	822/24911/
15	Metric weight, Class "P"	Ainsworth	822/249111/
70	Digital Thermometer	OMEGA	I0100 & I0122/2551022/2499311/D2315
20	Weights	Fairbank-Morse	822/249504822/249111
13	Laseruler	Pratt & Whitney	821/250570-92
7	Gauge Blocks	Starrett-Weber	821/250570-92/
138	Thermometer	XSYS	251022/249931/D2315
47	Super Micrometer	Pratt & Whitney	21/250570-92/821/252292-93
40	Pressure Gauge	Heise	TN2401668/50-22/249434
58	Hoke Block Set	Pratt & Whitney	821/250570-92
120	Gauge Blocks	Hoke	21/252292-93

- (B) Standards shall be of a greater accuracy than the item calibrated. Records selected for this review are listed below:

<u>PTL No</u>	<u>Item Calibrated</u>
Y11023	Gauge Ball
Y11024	Gauge Ball
Y3108	Thermometer
Y2529	Thermometer
Y11028	Thermometer

<u>PTL No</u>	<u>Item Calibrated</u>
Y11027	Thermometer
Y3060	Scales
Y10980	OD Micrometer
Y10981	Dial Caliper
Y10982	Dial Caliper

- (C) Calibration Intervals and Calibration History shall be maintained for each of the M&TEs. The records for the following M&TEs were examined:

<u>PTL No</u>	<u>Interval</u>	<u>Procedure</u>	<u>Item</u>	<u>Range</u>
Y3128	1-year	TC-515-CP-temp-1, R-0	Thermometer	-20 to 110 Deg C
STD-123	6-month	TC-515-CP-Mass-3, R-0	Comparator, Mass	10-Kg
Y10964	6-month	TC-515-CP-PRES-1, R-1	Press Transducer	0-50 psig
Y10106	6-month	TC-515-CP-REC-1, R-1	Recorder	0-500/0-300/ 0-100 Deg F
Y10079	1-year	TC-515-CP-TEMP-4, R-0	Thermocouple	-10 to 50 Deg C
Y10875	6-month	TC-515-CP-TEMP-1, R-0	Dial Thermometer	-40 to 160 Deg F
Y10341	Was found - out of tolerance - Reject			
Std-129	1-year	TC-515-CP-REC-1, R-0	Hydrothermograph	-20-50/0-100 R/H

- (D) The user shall be notified when the M&TE is due for recalibration. The following letters and/or notifications were verified.

M. M. Azhikakath Manager of Engineer Department to User, No. 5556.03.10, M&TEs due for calibration

H. H. Caldwell to D. M. Wonderly to Users, - M&TEs due for calibration dated 8/4/93.

YMP Construction

01581, Pressure Gauge - Due 9/16/93
 10594, Torque Wench - Due 9/4/96
 10618, Gauge, Due 9/26/93

SAIC

10065, Pressure Gauge, Due 1/22/96
 10185, Pyrometer, Due 4/27/93
 10172, Cal. Weight set, Due 6/17/93
 10173, 3-kg Weight set, Due 6/17/93
 10174, 500gr weight set, Due 6/17/93

- (E) All calibrations performed by PSSCL Personnel shall be in accordance with approved REECo Calibration Procedures (TC-Series) See Item C.

- (F) When out of tolerance conditions are noted, the calibration technician shall notify the user via a Physical Standards & Calibration Out of Tolerance Notification. The following notification was verified:

PTL Y1-341 Memo, C. H. Mason to W. J. Glasser, Dated 9/1/93

Block¹⁰

It was verified during this surveillance that REECo procedure MC 10.0, Revision 1, was being effectively implemented for the control and usage of measuring and test equipment.

Aspects that were reviewed during the surveillance are listed in Block 9, (A) through (F).

No deficiencies were noted as a result of this surveillance.