



Department of Energy  
Office of Civilian Radioactive Waste Management  
Yucca Mountain Site Characterization Office  
P.O. Box 98608  
Las Vegas, NV 89193-8608

QA: L

SEP 19 1994

L. Dale Foust  
Technical Project Officer  
for Yucca Mountain  
Site Characterization Project  
TRW Environmental Safety Systems, Inc.  
Bank of America Center, Suite P-110  
101 Convention Center Drive  
Las Vegas, NV 89109

ISSUANCE OF SURVEILLANCE RECORD YMP-SR-94-066 RESULTING FROM  
YUCCA MOUNTAIN QUALITY ASSURANCE DIVISION (YMQAD) SURVEILLANCE OF  
THE CIVILIAN RADIOACTIVE WASTE MANAGEMENT SYSTEM MANAGEMENT AND  
OPERATING CONTRACTOR (CRWMS M&O) AUDIT 94-NSA-02 (SCPB: N/A)

Enclosed is the record of Surveillance YMP-SR-94-066 conducted by  
the YMQAD at the CRWMS M&O facilities in Las Vegas, Nevada,  
August 29 through September 2, 1994.

The purpose of the surveillance was to verify that CRWMS M&O  
performed Audit 94-NSA-02 in accordance with CRWMS M&O Quality  
Assurance Procedure 18.2, Revision 3, "Audits," and to verify  
that the adequacy and implementation of the audit process meets  
the requirements of the Quality Assurance Requirements and  
Description Document, DOE/RW-0333P, Revision 1.

No Corrective Action Requests were issued as a result of this  
surveillance.

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 Frank J. Kratzinger at 794-7163.

Richard E. Spence, Acting Director  
Yucca Mountain Quality Assurance Division

YMQAD:RBC-5108

Enclosure:  
Surveillance Record YMP-SR-94-066

YMP-5

9409270243 940919  
PDR WASTE  
LHM-11 PDR

NH03  
102.7  
Wm-11

SEP 19 1994

L. Dale Foust

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cc w/encl:

D. A. Dreyfus, HQ (RW-1) FORS  
R. W. Clark, HQ (RW-3.1) FORS  
T. A. Wood, HQ (RW-14) FORS  
W. L. Belke, NRC, Las Vegas, NV  
~~R. L. Johnson~~, 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 Commissioners, 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  
S. L. Bolivar, LANL, Los Alamos, NM  
R. E. Monks, LLNL, Livermore, CA  
W. J. Glasser, REECO, Las Vegas, NV  
R. R. Richards, SNL, Albuquerque, NM, M/S 1333  
R. P. Ruth, M&O/Duke, Las Vegas, NV  
T. H. Chaney, USGS, Denver, CO  
K. B. Johnson, SAIC, Las Vegas, NV  
C. K. Van House, YMQAD/QATSS, Las Vegas, NV  
R. L. Maudlin, YMQAD/QATSS, Las Vegas, NV  
C. J. Henkel, NEI, Washington, DC

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SR  
8/15/94

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

QUALITY ASSURANCE SURVEILLANCE RECORD

SURVEILLANCE DATA

<sup>1</sup>ORGANIZATION/LOCATION:  
TRW, Management & Operating  
(M&O) Contractor, Las Vegas, NV

<sup>2</sup>SUBJECT:  
M&O Audit Process

<sup>3</sup>DATE: 8/29-9/2/94

<sup>4</sup>SURVEILLANCE OBJECTIVE:  
To verify M&O performance of internal audit in accordance with applicable requirements.

<sup>5</sup>SURVEILLANCE SCOPE:  
To assess the adequacy and implementation of the M&O audit process.

<sup>6</sup>SURVEILLANCE TEAM:  
Team Leader:

Frank Kratzinger  
Additional Team Members:

<sup>7</sup>PREPARED BY:  
Frank Kratzinger 8/23/94  
Surveillance Team Leader Date

<sup>8</sup>CONCURRENCE:  
N/A  
QA Division Director Date

SURVEILLANCE RESULTS

<sup>9</sup>BASIS OF EVALUATION/DESCRIPTION OF OBSERVATIONS:

See Pages 2 and 3

<sup>10</sup>SURVEILLANCE CONCLUSIONS:

See Page 3

<sup>11</sup>COMPLETED BY:  
Frank Kratzinger 9/15/94  
Surveillance Team Leader Date

<sup>12</sup>APPROVED BY:  
Robert B. Custard 8.16.94  
QA Division Director Date

**9 BASIS OF EVALUATION/DESCRIPTION OF OBSERVATIONS:**

The purpose of this surveillance was to observe the Civilian Radioactive Waste Management System (CRWMS) Management and Operating (M&O) Contractor's Audit No. 94-NSA-02 conducted in Las Vegas, Nevada, from August 29 through September 2, 1994.

The scope of the audit planned to evaluate the adequacy and effectiveness of implementation of selected elements of the M&O Quality Assurance (QA) Program. The following criteria were identified in the scope of this audit: QA Program (Training & Qualification); Document Control; Control of Measuring and Test Equipment; Corrective Action; QA Records; and Software.

The following personnel participated in the audit:

W. Petrie, Audit Team Leader, M&O  
R. Berlien, Auditor, M&O  
W. Farmer, Auditor, M&O  
P. Horsmon, Auditor, M&O  
G. Vaslos, Auditor, M&O  
M. Engineer, Technical Specialist, M&O  
F. Kratzinger, Observer, Yucca Mountain Quality Assurance Division/QATSS

The qualifications of the audit team and technical specialist were reviewed and found to be acceptable.

The audit team identified two deficiencies which resulted in the issuance of Corrective Action Reports (CARs). The following represents the CARs issued as a result of this audit:

**M&O CAR 94-QN-C-60**

One new employee did not have a position description completed within the time period allowed and three employees did not have position descriptions for their current positions per the requirements of QAP-2.2.

**M&O CAR 94-QN-C-061**

This CAR was generated against QAP-19.1 (item 5) and QAP-19.2 (items 1, 2, 3, and 4) for software control. Five deficiencies were identified as follows:

1. Several items of the LYNX GMS VER. 1.0 software package were not identified to the Las Vegas SCM for CSCI identification and description.
2. The tape identified in item 1 above was one of the two tapes used to qualify the LYNX VER. 1.0 software program and was found in the NO QARD section of the software library without a media identifier number.

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2. The tape identified in item 1 above was one of the two tapes used to qualify the LYNX VER. 1.0 software program and was found in the NO QARD section of the software library without a media identifier number.

3. The V&V documentation and Intended Use Report (IUR IOC LV.SB.RWE.6/94-075, dated June 24, 1994) associated with the qualification of LYNX VER. 1.0 identifies it as qualifying three subprograms; LYNX GMS VER. 1.0, Wavefront Data Visualizer VER. 3.0, and LYNX VER. 2.89. LYNX VER. 2.89 was not supplied to the M&O by the vendor. Discussion with engineering determined that LYNX VER. 2.89 is the same as LYNX GMS VER. 1.09 except that the latter does not include the additional mine production scheduling and application tools, and was not purchased by the M&O. Therefore, it should not be identified as being qualified in the V&V documentation and Intended Use Report.
4. One of the tapes identified as media number LV-M03-3001.001 contains LYNX GMS VER. 1.09 and Wavefront Data Visualizer VER. 2.1, the latter being an unqualified earlier version than the subprogram that was qualified (Wavefront Data Visualizer VER. 3.0). Another tape identified as media number LV-M03-3001.001 contains LYNX GMS VER. 1.0. Both tapes are identified by the same media number and one of the tapes contains a program that is not qualified for quality-affecting work.
5. An extra executable file (*lynx*) not included in the installation tape within the LYNX executable directory was on the computer at the engineer's work station.

#### **10 SURVEILLANCE CONCLUSIONS**

The audit was conducted in a professional manner by individuals who were properly qualified to perform the audit. It was verified that the audit was performed in accordance with the applicable requirements of QAP-18.2, Revision 3, Audits.

As a result of the audit the following program elements were determined to be marginally effective; QA Program (Training & Qualification) and Software. The other program elements; Document Control, Control of Measuring & Test Equipment, Corrective Action (past discrepancies), and QA Records were determined to be effective.