



Department of Energy
Office of Civilian Radioactive Waste Management
Yucca Mountain Site Characterization Office
P.O. Box 98608
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DEC 12 1994

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ISSUANCE OF SURVEILLANCE RECORD YMP-SR-95-006 RESULTING FROM
YUCCA MOUNTAIN QUALITY ASSURANCE DIVISION'S (YMQAD) SURVEILLANCE
OF LOS ALAMOS NATIONAL LABORATORY (LANL) (SCPB: N/A)

Enclosed is the record of Surveillance YMP-SR-95-006 conducted by
the YMQAD at the LANL facilities in Las Vegas, Nevada, October 31
through November 16, 1994.

The purpose of the surveillance was to verify compliance with the
Office of Civilian Radioactive Waste Management Quality Assurance
Requirements and Description document requirements in the
preparation of LANL Work Plans.

One Corrective Action Request (CAR) was issued as a result of
this surveillance. Response to the CAR, which was transmitted
via separate letter, is due by the date indicated in Block 13 of
the CAR.

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. However, the
open CAR will continue to be tracked until it is closed to the
satisfaction of the quality assurance representative and the
Director, YMQAD.

If you have any questions, please contact either Robert B.
Constable at (702) 794-7945 or Kristi A. Hodges at (702)
794-7807.

Richard E. Spence, Director
Yucca Mountain Quality Assurance Division

YMQAD:RBC-1198

Enclosure:
Surveillance Record YMP-SR-95-006

YMP-5

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PDR WASTE
WM-11 PDR

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DEC 12 1994

cc w/encl:

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

QUALITY ASSURANCE SURVEILLANCE RECORD

SURVEILLANCE DATA

¹ORGANIZATION/LOCATION:
Los Alamos National Laboratory
(LANL), Las Vegas, NV

²SUBJECT:
LANL Work Plans (WPs)

³DATE: 10/31/94 - 11/16/94

⁴SURVEILLANCE OBJECTIVE: To verify compliance with OCRWM Quality Assurance Requirements and Description (QARD) requirements in the preparation and implementation of LANL WPs.

⁵SURVEILLANCE SCOPE:
To evaluate selected WPs that are developed by LANL for the purpose of controlling work activities, including interfaces between affected organizations.

⁶SURVEILLANCE TEAM:
Team Leader:

Kristi A. Hodges

Additional Team Members:

None

⁷PREPARED BY:

Kristi A. Hodges

10/31/94

Surveillance Team Leader

Date

⁸CONCURRENCE:

[Signature]
QA Division Director

Date

SURVEILLANCE RESULTS

⁹BASIS OF EVALUATION/DESCRIPTION OF OBSERVATIONS:

See pages 2, 3, 4, and 5

¹⁰SURVEILLANCE CONCLUSIONS:

See page 5 and 6

¹¹COMPLETED BY:

[Signature] 12-8-94

Surveillance Team Leader

Date

¹²APPROVED BY:

[Signature] 12.9.94

QA Division Director

Date

ENCLOSURE

Block 9 (continued) Basis of Evaluation/Description of Observations:

The purpose of this surveillance was to verify compliance with QARD requirements in the preparation and implementation of LANL WPs. The surveillance was performed from October 31 through November 15, 1994, at the Bank of America Building in Las Vegas, NV.

Based upon the surveillance results, it was determined that WPs, indicated as "Administrative Only," contain technical/scientific direction in direct support of quality-affecting (QA) activities and therefore cannot be considered administrative in nature. One CAR was issued under separate cover stating that the existence of WPs does not meet QARD requirements for Section 1 (Organization Interface Requirements) and Section 6 (Document Control). Two potential solutions are detailed in Block 10 of this report.

Personnel Contacted

Andrew G. Burningham	Reynolds Electric & Engineering Co. (REECO)/LANL
Ned Z. Elkins	LANL
Albert C. Williams	Department of Energy (DOE)/Yucca Mountain Quality Assurance Division (YMQAD)
Susan B. Jones	Yucca Mountain Site Characterization Office (YMSCO)

Documents Reviewed

WP 92-20A, Geologic Mapping of the Ramps, MTL Drifts, and Alcoves
WP 92-20C, Consolidated Sampling in the Ramps, MTL Drifts, and Alcoves
WP 92-20D, Construction Monitoring in the Ramps, MTL Drifts, and Alcoves
WP 92-20E, Hydrochemistry Tests in the Exploratory Studies Facility North Ramp Starter Tunnel Alcove #1

Work Plan Description

LANL WPs are identified as "Administrative Only" and are not to contain QA requirements or be used in the performance or control of QA work. LANL has stated that these plans are intended to facilitate work activities and provide a plan for meeting non-quality/safety requirements.

WPs are intended to guide field interactions in support of Job Packages (JPs) and Test Planning Packages (TPPs). There is no procedure that describes how they are developed, reviewed, approved or revised, but a LANL procedure was in draft at the time of the surveillance. Although there is no procedure that specifies review criteria or approval authority, WPs are reviewed

and approved by the DOE Field Test Coordinator (FTC), the Exploratory Studies facility (ESF) Test Coordination Office (TCO), the REECO Construction Department Manager (CDM), the Test Survey Coordinator (TSC), the Photo Support (PS) section leader, the Civilian Radioactive Waste Management System Management and Operating (CRWMS M&O) Contractor Construction Manager, and the Principal Investigator (PI).

Although only participant level documents, WPs direct work across organizational lines. Mutual concurrence is obtained by affected organizational entities, including the DOE FTC, but the ultimate approval of the document is not at the next-higher level organization. For all practical purposes, there is no recognized approval of a WP.

WPs are neither formally controlled nor managed documents, but they are revised when determined necessary. Revisions are reviewed and approved by the organizational entities that reviewed and approved the original WP. A revised date is used to indicate document status.

WPs and resultant forms/documentation are not designated as records, but they are submitted to the Document Record Center (DRC) by the organizational entities indicated in the WP. Apparently, the DRC file for a given WP is appended to its associated JP, but this is not clear.

Work Plan Evaluation

Selected WPs were evaluated to determine whether they are, in fact, administrative in nature or whether sufficient technical/scientific direction exists therein to require QA designations. WPs were reviewed to determine if technical/scientific direction is given that has not been described in associated JPs, TPPs, or other documents under the purview of the YMQAD and whether that scientific/technical direction can be construed as criteria for acceptability of the work performed under the JP or TPP. Recognizing WPs as interface documents that direct work across organizational lines, a review was performed to determine whether the affected organizations identified in associated JPs were included in WP review and concurrence. Lastly, a review was performed to determine whether records identified in WPs are also identified in JPs as required inputs.

Technical/Scientific Content:

The following WP sections contain examples of technical/scientific direction concerning QA activities:

- Geologic Mapping (WP 92-20A, Section 3.1)
- Consolidated Sampling (WP 92-20C, Section 2)

- Construction Monitoring [WP 92-20D: extensometer-MPBX installation (Section 3, 4); rock bolt load cell and Instrument rock bolt (Section 8); rock mass classification and rock mass quality data (Section 12)]

WP 92-20D, Section 4.2.2 states, "Core handling and packaging instruction can be found in SP 92-20D (Construction Monitoring Sample Plan for the Ramps, MTL Drifts, and Alcoves)." The WP references another LANL document; i.e., a Sample Plan (SP), that is neither controlled or designated as QA. Handling and packaging of core samples is a QA activity to be performed in accordance with Project approved procedures.

- Hydrochemistry Testing (WP-92-20E): collection of tracer gas samples (Section 4,5, and 6)

Organizational Interfaces:

Reviewed JPs indicate responsibilities for participants; i.e., Raytheon Services Nevada (RSN), Drilling Support and Sample Management (DS&SM), and Johnson Controls. Although organizational changes have occurred since issuance of the JP, the functional activities are being performed. These organizational entities, for the most part, have not been included in the review and concurrence of WPs that further define their workscope. As a vehicle intended to coordinate field interactions, WPs have failed to include key participants. Note: These organizations were also omitted from formal distribution of WPs.

Records:

WPs are identified in JPs as records. Likewise, records listed in WPs as required inputs to the DRC file are identified in JPs as records. These records include documentation of QA activities; e.g., monitoring of tracers, fluids, and materials (TFMs); field survey data, notes, and plots; and sample location/traceability documentation.

General:

Reviewed WPs clearly state their intent as administrative documents, but the term "administrative" apparently holds differing meanings amongst Project personnel. The term as interpreted by the YMOAD does not apply to the technical/scientific direction which is, in general, evident in reviewed WPs. Although there are other documents; i.e., study plans, JPs, and TPPs, that contain like information with perhaps more detail, the reiteration of technical information should not be construed as administrative.

There also appears to be confusion as to whether the steps conducted prior to actual performance of a procedure; i.e., planning and sequencing of events, are part of the QA activity.

It is the position of the YMQAD that any document directing the sequencing and performance of QA work is to be designated and controlled as QA.

WPs are largely devoted to logistics; who notifies whom or who submits a given status report, but what might be perceived as an administrative function could be a critical step prior to start-up or a designated "hold point" preceding the next work phase. For instance, it is stated in WP 92-20A, "The TCO FTR . . . will provide a written "Release to Construction" to the CM after mapping is complete." Although included in the WP as an administrative step, the release indicates that QA mapping activities in support of site characterization have concluded in a given region and construction activities may continue without degradation or loss of data. This release could also be associated with safety in a "lock-out/tag-out" situation, but it must be understood that control of a QA activity; e.g., geologic mapping, applies to all stages, including its cessation.

Block 10 (Continued) Surveillance Conclusions:

Although progress is underway; i.e., development of a WP governing procedure, it is the determination of the YMQAD that WPs are not administrative documents. The use of WPs is not consistent with the QARD in the following areas:

- 1) WPs contain technical/scientific direction in support of JPs to which the Quality Assurance Program applies. Therefore, WPs should be also designated as QA.
- 2) WPs have no recognized approval authority. Workscopes and organizational interfaces in support of QA activities are established in a participant level document that has not been reviewed, approved, and issued by the next highest level of management (Project management or the YMQAD).
- 3) There is no formal method by which WPs are developed, reviewed, approved, issued, and revised. WPs are mentioned in a few Project procedures, but they have not been described therein nor have requirements been established for their use.
- 4) Work is guided and sequenced per the WP and not the JP which is the formally controlled document.

The LANL decision to create an additional planning document could be attributed to an inherent weakness in the JP format and process. There is a perception that the current JP checklist format is too limited to be of value at the working level. Another perception is that the WP is a vehicle to keep detail out of the JP and therefore out of formalized processes. Although the WP is responsive to quick changes, the concern is that major changes can be implemented without the knowledge and concurrence of Project management or the YMQAD. WPs state that they have been

reviewed to ensure that they contain no QA requirements. However, the YMQAD reviews and approves all JPs, TPPs, Change Directives, and Field Change Requests regardless of QA designation, but WPs do not receive a Project level QA review.

Potential Solutions

Although the ultimate resolution may involve a revamping of the JP process, latitude has been given to LANL by the YMQAD to append necessary detail to the required JP checklist, therefore negating the need for a WP. LANL has basically two options to resolve the deficient condition as follows:

1. Make the WP a Project level QA document. Revise or create a Project level procedure(s) that establishes requirements for WP preparation, review (including review criteria), approval, issuance, and revision; or
2. Eliminate all scientific/technical direction, specifications, interfaces, logistics, etc., in support of QA activities. Revise appropriate JPs to include the WP scientific/technical direction, specifications, interfaces, logistics, etc. If a WP is still determined necessary as a management tool, include only administrative information; e.g., budget, resource allocation, and other information having no impact on the technical acceptability of the work performed.