



**Department of Energy**  
 Office of Civilian Radioactive Waste Management  
 Yucca Mountain Site Characterization Office  
 P.O. Box 98608  
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NOV 12 1996

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**ISSUANCE OF SURVEILLANCE RECORD YMP-SR-96-013 RESULTING FROM THE  
 OQA SURVEILLANCE OF THE CRWMS M&O**

Enclosed is the record of Surveillance YMP-SR-96-013 conducted by the Office of Quality Assurance at the Civilian Radioactive Waste Management System Management and Operator Contractor (CRWMS M&O) facilities in Las Vegas, Nevada, August 24, 1996 through September 20, 1996.

The purpose of the surveillance was to verify that CRWMS M&O procedures identified in the Quality Assurance Requirements and Description (QARD) document, DOE/RW-0333P, Revision 5, CRWMS M&O Requirements Matrix for Design Input Control were in compliance with the requirements of the QARD. Based on the review of objective evidence, it was determined that CRWMS M&O procedures for control of design inputs are in compliance with QARD requirements.

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 James Blaylock at (702) 794-1420 or Patout H. Cotter at (702) 794-1332.

*Richard E. Spence*

Richard E. Spence  
 Office of Quality Assurance

OQA:JB-0281

Enclosure:  
 Surveillance Record YMP-SR-96-013

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

QUALITY ASSURANCE SURVEILLANCE RECORD

SURVEILLANCE DATA

<sup>1</sup>ORGANIZATION/LOCATION:  
Civilian Radioactive Waste  
Management System  
Management and Operating  
Contractor (CRWMS M&O)  
Design, Bank of America  
Building, Las Vegas, NV

<sup>2</sup>SUBJECT:  
Control of Design Input

<sup>3</sup>DATE: 8/24/96 -9/20/96

<sup>4</sup>SURVEILLANCE OBJECTIVE: To determine and verify that the process for controlling design inputs meets Quality Assurance Requirements and Description (QARD) Section 3.0, "Design Control," Paragraph 3.2.1, "Design Input Control" requirements.

<sup>5</sup>SURVEILLANCE SCOPE: The scope of this surveillance is to review procedures identified in the "QARD DOE/RW-0333P, Revision 5, M&O Requirements Matrix" that implement the requirements of the QARD for the control of design inputs.

<sup>6</sup>SURVEILLANCE TEAM:

Team Leader: P. H. Cotter

Additional Team Members:  
N/A

<sup>7</sup>PREPARED BY: P. H. Cotter 8/24/96  
P. H. Cotter Date  
Surveillance Team Leader

<sup>8</sup>CONCURRENCE: \_\_\_\_\_  
QA Division Director Date

SURVEILLANCE RESULTS

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

See Page(s) 2 & 3

<sup>10</sup>SURVEILLANCE CONCLUSIONS:

See Page(s) 4

<sup>11</sup>COMPLETED BY: P. H. Cotter 11/4/96  
Surveillance Team Leader Date

<sup>12</sup>APPROVED BY: [Signature] 11/7/96  
QA Division Director Date

**Block 9 (continued) BASIS OF EVALUATION/DESCRIPTION OF OBSERVATIONS:**

From August 24, 1996 through September 20, 1996, a surveillance was performed (not continuous; on a part-time basis) of the CRWMS M&O Design organization at their offices in the Bank of America Building, Las Vegas, Nevada. The objective of this surveillance was to verify that the CRWMS M&O procedures identified in the "QARD DOE/RW-0333P, Revision 5, M&O Requirements Matrix" for Design Input Control were in compliance with the requirements of the QARD, Revision 5, listed below:

- 1) Paragraph 3.2.1A. Requirement - "Design inputs shall be identified and documented, and their selection reviewed and approved by those responsible for the design."**

Review of procedures identified in the "M&O Requirements Matrix" (refer to Objective Evidence) revealed that the above requirement was addressed as identified in the matrix.

- 2) Paragraph 3.2.1B. Requirement - "Design inputs shall be specified and approved on a timely basis and to the level of detail necessary to permit the design work to be carried out in a correct manner that provides a consistent basis for making design decisions, accomplishing design verification, and evaluating design changes."**

Review of procedures identified in the "M&O Requirements Matrix" (refer to Objective Evidence) revealed that the above requirement was addressed as identified in the matrix.

- 3) Paragraph 3.2.1C. Requirement - "Changes from approved design inputs and reasons for the changes shall be identified, approved, documented, and controlled."**

Review of procedures identified in the "M&O Requirements Matrix" (refer to Objective Evidence) revealed that the above requirement was addressed as identified in the matrix.

- 4) Paragraph 3.2.1D. Requirement - "Design inputs based on assumptions that require confirmation shall be identified and controlled as the design proceeds."**

Review of procedures identified in the "M&O Requirements Matrix" (refer to Objective Evidence) revealed that the above requirement was addressed as identified in the matrix.

**OBJECTIVE EVIDENCE**

**The following documents and procedures were reviewed during the course of the surveillance:**

**Documents:**

QARD, DOE/RW-0333P, Revision 5, M&O Requirements Matrix, Version dated 8/12/96

**Quality Assurance Procedures (QAP):**

QAP-3-0, Revision 4, "Design Control Process"

QAP-3-2, Revision 6, "Design Verification"

QAP-3-5, Revision 6, "Development of Technical Documents"

QAP-3-8, Revision 6, "Specifications"

QAP-3-9, Revision 6, "Design Analysis"

QAP-3-10, Revision 6, "Engineering Drawings"

**Nevada Line Procedures (NLP):**

NLP-2-0, Revision 2, "Determination of Importance Evaluations"

NLP-3-15, Revision 3, "To Be Verified (TBV) and To Be Determined (TBD) Monitoring System"

NLP-3-18, Revision 4, "Documentation of QA Controls on Drawings, Specifications, Design Analyses, and Technical Documents"

NLP-3-24, Revision 2, "Processing of Inputs List Changes"

NLP-3-26, Revision 0, "Impact Reviews of Revisions of Documents and Field/Laboratory Data That Affect The MGDS Development Organization"

NLP-3-28, Revision 0, "Checklists For Design Products"

**Vienna Line Procedure (VLP):**

VLP-3-1, Revision 2 "Design Requirements Traceability"

VLP-3-2, Revision 2, "To Be Verified (TBV) and To Be Determined (TBD) Monitoring"

**The following CRWMS M&O individuals were interviewed or contacted during the course of this surveillance:**

R. Snell, CRWMS M&O, Engineering & Integration Operations  
J. Bailey, CRWMS M&O, Engineering & Integration Operations  
O. J. Gilstrap, CRWMS M&O, Quality Assurance  
R. Howard, CRWMS M&O, Product Integrity  
R. Stambaugh, CRWMS M&O, Product Integrity

**Block 10 (continued) SURVEILLANCE CONCLUSIONS:**

Based on review of present implementing procedures and interviews with project personnel, it has been determined that the CRWMS M&O control of design inputs is in compliance with QARD requirements.

There were no deficiency documents issued as a result of the surveillance; however, because of the changes being made to the engineering and design processes, there are four recommendations for management consideration.

**Recommendations:**

1. Prepare a technical management plan which formalizes the presentations given on the new approach to Engineering Documentation and describes the Engineering Control Procedures Natural Working Group and its objectives.
2. Revise QAP-3-0, "Design Control Process" to describe the use of the following documents: "Design Assumptions Document," "Mined Geologic Disposal System Functional Analysis Document," "Controlled Design Assumptions Document," and "Systems Design Description Documents."
3. Prepare a Nevada Line Procedure to describe the preparation and control of the "Control Design Assumptions Document."
4. Prepare a Nevada Line Procedure to describe the preparation and control of "Systems Design Description Documents."