

OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT (OCRWM)

OFFICE OF QUALITY ASSURANCE (OQA)

AUDIT PLAN FOR AUDIT HQ-ARC-95-04

OF THE

CRWMS M&O

**VIENNA, VIRGINIA
FEBRUARY 7-10, 1995**

**LAS VEGAS, NV
FEBRUARY 21-24, 1995**

Prepared by: Marlin Horseman Date: 1/13/95
Marlin L. Horseman
Audit Team Leader
Headquarters Quality Assurance Division,
Quality Assurance Technical Support Services

Approved by: Carl E. Horton for Date: 1/25/95
Donald G. Horton
Director
Office of Quality Assurance

9502010201 950125
PDR WASTE PDR
WM-11

AUDIT PLAN
AUDIT NUMBER: HQ-ARC-95-04
AUDIT OF THE CRWMS M&O

An audit of M&O activities will be conducted the weeks of February 7-10, 1995 at the Vienna, VA offices and February 21-24, 1995 at the M&O offices in Las Vegas, NV.

The audit will be conducted by:

<u>NAME</u>	<u>ORGANIZATION</u>	<u>TEAM</u>
Marlin Horseman	QATSS, Washington, D.C.	Audit Team Leader
Charles Betts	QATSS, Washington, D.C.	Auditor Team Leader In Training
Vance Cannaday	QATSS, Washington, D.C.	Auditor
Walter Coutier	QATSS, Washington, D.C.	Auditor
Hugh Lentz	QATSS, Washington, D.C.	Auditor
Amy Arceo	QATSS, Las Vegas, NV	Auditor

Observers from the State of Nevada, U.S. Nuclear Regulatory Commission, and other interested parties will be invited to participate.

AUDIT SCOPE

This limited scope audit will evaluate the M&O quality assurance program compliance with applicable requirements of the Quality Assurance Requirements and Description (QARD, DOE/RW-0333P). This audit, in addition to audit HQ-94-02, as well as, other OCWRM audits and surveillances will complete the "Baseline Audit" requirements of the M&O in meeting the applicable requirements of QARD, DOE/RW-0333P.

The audit will evaluate the M&O QA Program adequacy and implementation as described in the Quality Assurance Requirements and Description Matrix and the related implementing procedures used to perform M&O activities. In addition, the audit will review any outstanding deficiencies to evaluate their impact on M&O program qualification.

QA PROGRAM ELEMENTS

The implementation of the following elements will be evaluated during the audit:

- | | | |
|------------|---|---|
| 1 | - | Organization |
| 2 | - | Quality Assurance Program |
| 3 | - | Design Control |
| 12 | - | Control of Measuring and Test Equipment |
| 17 | - | Quality Assurance Records |
| SI | - | Software |
| SII | - | Scientific Investigation |
| Appendix C | - | Mined Geologic Disposal System |

The audit will be based on requirements drawn from the QARD and applicable M&O Quality Assurance Procedures (QAPs), Implementing Line Procedures (ILPs), and other M&O supporting procedures.

Checklists developed from the above documents will be used in conducting the audit. If the audit team identifies a need to verify additional programmatic areas during the audit, they will be added to the audit checklist and verified accordingly.

PRELIMINARY AUDIT SCHEDULE

Audit Team & Observer Briefing - VA	February 7	8:00 am	-	8:30 am
Preaudit Meeting - VA	February 7	8:30 am	-	9:00 am
Conduct of Audit - VA	February 7	9:00 am	-	4:00 pm
	February 8-9	8:00 am	-	4:00 pm
	February 10	8:00 am	-	3:00 pm
Postaudit Meeting - VA	February 10	10:00 am	-	10:30 am
Audit Team & Observer Briefing - NV	February 21	8:00 am	-	8:30 am
Preaudit Meeting - NV	February 21	8:30 am	-	9:00 am
Conduct of Audit - NV	February 21	9:00 am	-	4:00 pm
	February 22-23	8:00 am	-	4:00 pm
	February 24	8:00 am	-	2:00 pm
Postaudit Meeting - NV	February 24	2:00 pm	-	2:30 pm
Daily Audit Team Debriefing		4:00 pm		
Daily M&O Management Meeting		8:30 am		

The audit may be extended as necessary to ensure adequate coverage of each criterion to be audited.

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

PAGE 1 OF 1
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST

1 ORGANIZATION EVALUATED CRWMS M&O	2 [X] EXTERNAL [] INTERNAL	3 [X] AUDIT [] SURVEILLANCE	4 PREPARED BY <u>Vance Cannaday</u> DATE <u>1/27/95</u> <i>Marlin Hornean 2/1/95</i>
6 DATES OF EVALUATION Feb 7-10 & 21-24, 1995			
5 CONTROLLING DOCUMENT (Title, Number, Revision) Quality Assurance Requirements and Description, DOE/RW-0333P, Rev 1.			7 ACTIVITY EVALUATED Supplement III, Scientific Investigation

8 ITEM NO.	9 CHARACTERISTICS TO BE EVALUATED	10 REMARKS	11 RESULTS
1	Determine through interviews that QAP-19-3, Model Validation, appropriately addresses the requirements of the QARD for the validation of models used in scientific investigation. (Supplement III.2.6)		

Uncl. with uncl. 1/25/95

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

PAGE 1 OF 1
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST

1 ORGANIZATION EVALUATED CRWMS M&O	2 [X] EXTERNAL [] INTERNAL	3 [X] AUDIT [] SURVEILLANCE	4 PREPARED BY <u>Vance Cannaday</u> DATE <u>1/27/95</u> <i>Marlin Hornean 2/1/95</i>
5 DATES OF EVALUATION Feb 7-10 & 21-24, 1995			
6 CONTROLLING DOCUMENT (Title, Number, Revision) Quality Assurance Requirements and Description, DOE/RW-0333P, Rev 1.		7 ACTIVITY EVALUATED Supplement III, Scientific Investigation	

8 ITEM NO.	9 CHARACTERISTICS TO BE EVALUATED	10 REMARKS	11 RESULTS
1	Determine through interviews that QAP-19-3, Model Validation, appropriately addresses the requirements of the QARD for the validation of models used in scientific investigation. (Supplement III.2.6)		

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

PAGE 1 OF 1
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST

1 ORGANIZATION EVALUATED CRWMS M&O	2 <input checked="" type="checkbox"/> EXTERNAL <input type="checkbox"/> INTERNAL	3 <input checked="" type="checkbox"/> AUDIT <input type="checkbox"/> SURVEILLANCE	4 PREPARED BY <u>Charles E. Betts</u> DATE <u>1/26/95</u> <i>Marilyn Horseman 2/1/95</i>
5 DATES OF EVALUATION February 7-10, 1995 (Vienna, VA) February 21-24, 1995 (Las Vegas, NV)			

6 CONTROLLING DOCUMENT (Title, Number, Revision) DOE/RW-0333P QARD DOE/RW/0333P Appendix C, Rev. 0	7 ACTIVITY EVALUATED Element 15, Nonconformances
---	---

8 ITEM NO.	9 CHARACTERISTICS TO BE EVALUATED	10 REMARKS	11 RESULTS
1	Verify that the M&O initiates NCRs only when performing as a direct support contractor for OCRWM.		

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

PAGE 1 OF 3
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST

1 ORGANIZATION EVALUATED CRWMS M&O		2 [x] EXTERNAL	3 [x] AUDIT	4	
5 DATES OF EVALUATION February 7-10, 1995 (Vienna, VA) February 21-24, 1995 (Las Vegas, NV)		[] INTERNAL	[] SURVEILLANCE	PREPARED BY <u>Charles E. Betts</u> DATE <u>1/26/95</u> <i>Marlin Horvath 2/1/95</i>	
6 CONTROLLING DOCUMENT (Title, Number, Revision) DOE/RW-0333P QAP-1-1, Rev. 2, Resolution of Quality Disputes				7 ACTIVITY EVALUATED Element 1, Resolution of Quality Disputes	
8 ITEM NO.	9 CHARACTERISTICS TO BE EVALUATED	10 REMARKS		11 RESULTS	
1	Determine if there has been any quality dispute(s) requiring the use of this procedure. Review the QMIS Data Base (Para. 5.3.2)				
2	Verify that any dispute(s) are documented on Dispute Escalation Reports (DER). (Para. 5.1.1)				

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

SHEET 2 OF
AUDIT/SURVEILLANCE
NO. HQ-ARC-85-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
3	<p>Verify that any dispute(s) was escalated to the appropriate managers for reply and originator's decision on acceptability.</p> <ul style="list-style-type: none"> • Replying Manager • QA Manager • General Manager <p>(Paras. 5.2, 5.3, 5.4)</p>		
4	<p>Verify that the dispute was entered and completed in the QMIS database. (Paras. 5.3.2 and 5.5.3)</p>		

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

SHEET 3 OF
AUDIT/SURVEILLANCE
NO. HQ-ARC-85-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
5	Determine if the originator accepted a reply or pursued the OCRWM Quality Concerns Program. (Para. 5.5.2)		
6	Verify that the DER was completed and submitted as a QA record to the LRC. (Paras. 5.5 & 5.6)		

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

PAGE 1 OF 5
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST

1 ORGANIZATION EVALUATED CRWMS M&O	2 <input checked="" type="checkbox"/> EXTERNAL <input type="checkbox"/> INTERNAL	3 <input checked="" type="checkbox"/> AUDIT <input type="checkbox"/> SURVEILLANCE	4 PREPARED BY <u>Charles E. Betts</u> DATE <u>1/26/95</u> <i>Marlin Horowitz 2/1/95</i>
5 DATES OF EVALUATION February 7-10, 1995 (Vienna, VA) February 21-24, 1995 (Las Vegas, NV)	6 CONTROLLING DOCUMENT (Title, Number, Revision) DOE/RW-0333P QAP-3-3, Rev. 3, Peer Review		
7 ACTIVITY EVALUATED Element 3, Design Control			

8 ITEM NO.	9 CHARACTERISTICS TO BE EVALUATED	10 REMARKS	11 RESULTS
1	Determine if there has been any Peer Reviews performed that would require the use of this procedure. (General)		
2	Verify through interviews and document review that process used to determine when a Peer Review is required. (Para. 5.1)		

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

SHEET 2 OF 5
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
3	Verify that a Peer Review Plan is prepared by the Peer Review Chairperson prior to initiating a Peer Review. (Para. 5.2.2)		
4	Verify that the Peer Review Plan describes the following: <ul style="list-style-type: none"> • The work to be reviewed • The criteria for the review • The spectrum of expertise and size of the peer review group • The suggested method and schedule necessary to produce a timely Peer Review Report. (Para. 5.2.2) 		

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

SHEET 3 OF 5
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
5	Verify that Peer Reviewers' qualifications are documented in accordance with M&O procedures or with an OCRWM approved program and that the expertise of the Peer Review Group is commensurate with the work product. (Paras. 5.2.4 and 5.2.5)		
6	Verify through document review that the independence of the Peer Reviewers is verified with objective evidence. (Para. 5.2.6)		

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

SHEET 4 OF 5
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
7	Verify through interviews and document review that all comments are resolved and any corrective action (changes) are tracked and closed. (Para. 5.3)		
8	Verify that the Peer Review Chairperson prepares a written Peer Review Report which contains items A-F of paragraph 5.3.4. (Para. 5.3.4)		

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

SHEET 5 OF 5
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
9	Verify that the Peer Review Chairperson reviews the Peer Review Report and completes the Peer Review Checklist.		
10	Verify that Peer Review records are submitted to the LRC. (Para. 6)		

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

PAGE 1 OF 8
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST

¹ ORGANIZATION EVALUATED CRWMS M&O	² <input checked="" type="checkbox"/> EXTERNAL <input type="checkbox"/> INTERNAL	³ <input checked="" type="checkbox"/> AUDIT <input type="checkbox"/> SURVEILLANCE	⁴ PREPARED BY <u>Walter Coutier</u> DATE <u>1/25/95</u> <i>Marlin Howeman 2/1/95</i>	
⁵ DATES OF EVALUATION February 7-10, 21-24, 1995	⁶ CONTROLLING DOCUMENT (Title, Number, Revision) QAP-3-8, Rev. 4, <i>Specifications</i>			⁷ ACTIVITY EVALUATED Element 3, <i>Design Control</i>
ITEM NO.	CHARACTERISTICS TO BE EVALUATED	REMARKS	RESULTS	
1	Verify the Department Manager assigns an LDE to control the development of each required specification, including revisions in accordance with this procedure. (Para. 5.1.1)			

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

SHEET 2 OF 8
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
2	<p>Verify the Originator:</p> <ul style="list-style-type: none"> a. Obtains a Document Identifier in accordance with QAP-3-13 and notes "Preliminary" or "Preliminary Draft." b. Prepares specification and considers applicable Review Topics (Attachment I) c. Follows format of Attachment II or III. d. Initiates cover sheet (Attachment IV). e. Indicates applicability of QA Program in accordance with QAP-2-0 and QAP-2-3. f. Completes review summary (Attachment X) g. Signs and dates Specification Inputs List. <p>(Para. 5.1.3)</p>		

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

SHEET 3 OF 8
 AUDIT/SURVEILLANCE
 NO HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
3	<p>Verify that the Checker:</p> <ul style="list-style-type: none"> a. Checks the specification for completeness and technical adequacy using Attachment I of QAP-3-8. b. Clearly and legibly notes all comments on the check copy. c. Ensures approved format. d. Back-checks the new document. e. Signs and dates the Specification review summary when all comments are resolved/incorporated. f. Returns Check Copy to Originator. g. Returns the document and specification Inputs List (if used) to the Originator. <p>(Para. 5.2.4)</p>		

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

SHEET 4 OF 8
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
4	<p>Verify that for the interdisciplinary reviews:</p> <ul style="list-style-type: none"> a. The LDE determines affected disciplines or justifies review not required. b. Returns Specification Review Summary and modified specification to the Originator. c. The Reviewer(s) ensure comments are legible, initiated and dated on review copy. d. The Reviewer(s) signs and dates Specification Review Summary when complete. e. The Originator resolves, incorporates or elevates comments f. The Originator modifies specification as required. g. The Reviewer backchecks specification against review copy, signs and dates Specification Review Summary. h. The Reviewer returns modified specification and Review Summary to LDE. <p>(Para. 5.3)</p>		

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

SHEET 5 OF 8
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
5	<p>Verify that for external reviews, the Department Manager determines if specification affects organizations outside the design organization.</p> <p>a. If yes - conduct review per QAP-3-1.</p> <p>b. If no - document justification on Specification Review Summary initial and date.</p>		
6	<p>Verify final checking of specifications receive approval by the:</p> <p>a. Originator</p> <p>b. Checker</p> <p>c. LDE</p> <p>d. Location QA Manager.</p>		

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

SHEET 6 OF 8
AUDIT/SURVEILLANCE
NO HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
7	Verify Department Manager determines if specification should be baselined or, if not, distributed in accordance with QAP-6-1.		
8	Verify the approved specification is submitted to the BCCP for disposition and acceptance into the technical baseline IAW QAP-3-4. (Para. 5.10)		

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

SHEET 7 OF 8
AUDIT/SURVEILLANCE
NO HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
9	Verify, upon acceptance into the technical baseline, a copy of the specification is submitted to subcontractors or the Purchasing Manager for inclusion in the procurement authorization in accordance with QAP-4-1. (Para. 5.10.3)		
10	For revisions to specifications, verify that completed work performed IAW previously approved versions of the specification, are assessed for impact against proposed changes, and revisions to the specification. Verify that a description of the results, conclusions, and actions take relative to the work already performed is prepared by the specification preparer and is attached to the Certification of Specification form. (Para. 5.11)		

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

SHEET 8 OF 8
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
11	Verify that all QA records have been submitted to the LRC. (Para. 6)		

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

PAGE 1 OF 8
AUDIT/SURVEILLANCE
NO HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST

1 ORGANIZATION EVALUATED CRWMS M&O		2 <input checked="" type="checkbox"/> EXTERNAL	3 <input checked="" type="checkbox"/> AUDIT	4 PREPARED BY <u>Walter Coutier</u> DATE <u>1/25/95</u> <i>Marlin Horvath 2/1/95</i>	
5 DATES OF EVALUATION Feb. 7-10, 21-24, 1995		6 <input type="checkbox"/> INTERNAL	7 <input type="checkbox"/> SURVEILLANCE		
8 CONTROLLING DOCUMENT (Title, Number, Revision) QAP-3-9, Rev. 4, Design Analysis			9 ACTIVITY EVALUATED Element 3, Design Analysis Process		
11 ITEM NO.	12 CHARACTERISTICS TO BE EVALUATED	13 REMARKS		14 RESULTS	
1	Verify that the determination of whether design analyses are subject to QARD requirements is defined and proceduralized. (Paras. 2.SCOPE., 5.2.1F)				
2	Review the method used by the Department Manager and the LDE to identify and review all design input data to determine which analyses are required for the design of the system, structure, or component. (Para. 5.1)				

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

SHEET 2 OF 8
AUDIT/SURVEILLANCE
NO HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
3	<p>Verify that the Originator:</p> <ul style="list-style-type: none"> a. Prepares the information for the design analysis, including any necessary engineering calculations, using the analysis input including the available design input, recognized engineering practices, and specified procedures and requirements. b. Documents any other design documents affected by the design analysis in the "Remarks" section of the Design Analysis Cover Sheet (Attachment II). c. Obtains a Document Identifier for the design analysis in accordance with QAP-3-13. d. Presents the information in accordance with the specific outline in Attachment I in the order listed. If an item cannot be used in the analysis or does not warrant discussion, the heading shall be shown followed by "Not Applicable," "N/A," or "Not Used." e. Provides a cover sheet that conforms to Attachment II on each design analysis. f. Indicates the QA classification as determined by QAP-2-3 or the QA program applicability as determined in accordance with QAP-2-0. <p>(Para. 5.1.3)</p>		

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

SHEET 3 OF 8
AUDIT/SURVEILLANCE
NO HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
4	Verify that after completing the design analysis, the Originator signs, dates and forwards the original cover sheet and a copy of the document to the Checker. (Para. 5.1.3)		
5	<p>Verify that the Checker checks all aspects of the design analysis including the following:</p> <ul style="list-style-type: none"> a. Were the design inputs correctly selected and incorporated? b. Are all assumptions necessary to perform the design analysis adequately described, reasonable, and where necessary, reverified? c. Was the design method used appropriate to the goals and scope of the effort? d. Does the design output reasonable reflect the design inputs? e. Are the necessary design input and verification requirements for interfacing organizations specified in the design documents or in supporting implementing documents? f. Verify that methodologies used for checking are consistent between checkers. <p>(Para. 5.2.4)</p>		

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

SHEET 4 OF 8
AUDIT/SURVEILLANCE
NO HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
6	Verify that after all deficiencies and discrepancies have been corrected, the Checker signs the original cover sheet and forwards it, with a copy of the corrected design analysis, to the LDE. (Para. 5.2.6)		
7	Verify that the Department Manager and the LDE determine whether one or more interdiscipline reviews are required. Verify that the methodology used to determine if interdiscipline reviews are required is defined and consistent. (Para. 5.3)		

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

SHEET 5 OF 8
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
8	If interdiscipline reviews are required, verify the reviewer(s) perform a review for conformance or changes to his or her areas of work and coordinate any required changes to the preliminary draft design analysis with the preparer. (Para. 5.3.3)		
9	Verify that the Checker also signs and dates the original review document to confirm that the technical adequacy of the analysis was not affected by changes made as a result of the Interdiscipline Review. (Para. 5.5.2)		

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

SHEET 6 OF 8
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
10	Verify that the reviewer performs another review to ensure that the agreed upon changes have been incorporated and signs and dates the original review document on which his or her comments were made. Verify the LDE marks each of the signed off review copies "INTERDISCIPLINE REVIEW COPY." (Para. 5.3.3 and 5.3.4)		
11	Verify that necessary external reviews are conducted in accordance with QAP-3-1 prior to approval of the design analysis. Evaluate the methodology used to determine if external reviews are required. (Para. 5.4)		

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

SHEET 7 OF 8
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
12	Verify that for those design analyses to be released for procurement, fabrication, or construction, or for use as input for other design organizations, any determination that QAP-3-2 is not applicable has been documented on the Design Analysis Cover Sheet (Attachment II). Evaluate the methodology used to determine if QAP-3.2 verification is required. (Para. 5.7.1)		
13	Verify that the LDE indicates approval by signing and dating the original Design Analysis Cover Sheet after determining that the document is complete and meets the requirements of this procedure. (Para. 5.6.1)		

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

SHEET 8 OF 8
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
14	Verify that the Originator prepares revisions to approved design analyses in the same manner as the original. (Para. 5.9.1)		
15	Verify that QA records have been submitted to the LRC in accordance with QAP-17-1. (Para. 6)		

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

PAGE 1 OF 5
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST

CRWMS M&O		<input checked="" type="checkbox"/> EXTERNAL	<input checked="" type="checkbox"/> AUDIT		
* DATES OF EVALUATION February 7-10, 1995 (Vienna, VA) February 21-24, 1995 (Las Vegas, NV)		<input type="checkbox"/> INTERNAL	<input type="checkbox"/> SURVEILLANCE	PREPARED BY <u>Amelia I. Arceo</u>	DATE <u>1/23/95</u>
* CONTROLLING DOCUMENT (Title, Number, Revision) QAP-12-1, Rev. 0, P02 <i>Control of Measuring & Test Equipment & Calibration Standards</i>				' ACTIVITY EVALUATED Element 12, <i>Control of Measuring and Test Equipment</i>	
*ITEM NO.	* CHARACTERISTICS TO BE EVALUATED	" REMARKS		" RESULTS	
1	Determine if M&TE or calibration standards are used at this M&O facility.				

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

SHEET 2 OF 5
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
2	Verify that M&TE and calibration standards possess permanent identifying designations (i.e., serial number, model number, etc.) which allow for traceability. (Para. 5.5.1)		
3	Verify that the Responsible Manager (RM) maintains calibration data or an Equipment Calibration/History Record. (Paras. 5.3.3, 5.5.1)		

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

SHEET 3 OF 5
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
4	<p>Verify that the RM assigns proper identification to M&TE and calibration standards, and assures calibration prior to each usage as follows:</p> <ul style="list-style-type: none"> a. For the intended use b. Calibrated at the appropriate intervals specified for the item. c. M&TE used in one-time-only applications are calibrated before and after each usage. (Paras. 5.1.1, 5.1.2, 5.1.3, 5.2.1) 		
5	<p>Verify if any M&TE or Standards have been considered out-of-calibration (i.e., due to date/interval passed, device known or suspected to be in error, device has been damaged?) If so, verify that the provisions of paragraph 5.4 have been met. (Paras. 5.1.4, 5.4)</p>		

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

SHEET 4 OF 5
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
6	Determine if any calibrations of M&TE or calibration standards have been performed by an outside vendor or laboratory. If so, were the vendors/laboratories approved by M&O QA or was it an OCRWM QA approved source? (Para. 5.2.1)		
7	Verify that M&TE or Standards that have been removed from the calibration program has been properly designated and/or stored. (Paras. 5.7, 5.8).		

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

SHEET 5 OF 5
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
8	Verify that QA Records as a result of this procedure are being collected and maintained in accordance with QAP-17-1 and have been submitted to the LRC. (Para. 6)		

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

PAGE 1 OF 3
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST

1 ORGANIZATION EVALUATED CRWMS M&O	2 <input checked="" type="checkbox"/> EXTERNAL <input type="checkbox"/> INTERNAL	3 <input checked="" type="checkbox"/> AUDIT <input type="checkbox"/> SURVEILLANCE	4 PREPARED BY <u>Charles E. Betts</u> DATE <u>1/26/95</u> <i>Marli Horneum 2/1/95</i>	
5 CONTROLLING DOCUMENT (Title, Number, Revision) DOE/RW-0333P QAP-16-2, Rev. 2, <i>Stop Work</i>			7 ACTIVITY EVALUATED Element 16, <i>Stop Work Process</i>	
ITEM NO.	6 CHARACTERISTICS TO BE EVALUATED		10 REMARKS	11 RESULTS
1	Determine if there has been a "Stop Work" issued requiring the use of this procedure. (General)			
2	Verify that the QAR administers the Stop Work Notification Report (SWNR) Process when evaluation of a significant condition adverse to quality performed in accordance with QAP-16-1 indicates a Stop Work condition exists. (Para. 5.1.1)			

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

SHEET 2 OF 3
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
3	Verify that the Location QA Manager, M&O QA Manager, and the M&O General Manager evaluate the SWNR to determine if it is necessary to Stop Work. (Paras. 5.1.2, 5.1.3, 5.1.4)		
4	Verify that the Responsible Manager if determined to be necessary immediately stops all work described in the SWNR. (Para. 5.1.6)		

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

SHEET 3 OF 3
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
5	Verify that after verification that the corrective actions have been completed in accordance with QAP-16-1 and evaluated by management that the Location QA Manager notifies the Responsible Manager that suspended work may be resumed. (Paras. 5.2 and 5.3)		
6	Verify that all QA records have been submitted to the LRC in accordance with QAP-17-1. (Para. 6)		

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

PAGE 1 OF 8
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST

* ORGANIZATION EVALUATED CRWMS M&O	[X] EXTERNAL [] INTERNAL	[X] AUDIT [] SURVEILLANCE	PREPARED BY <u>Amelia I. Arceo</u> DATE <u>1/26/95</u> <i>Marlin Horvath 2/1/95</i>
* DATES OF EVALUATION February 7-10, 1995 (Vienna, VA) February 21-24, 1995 (Las Vegas, NV)			
* CONTROLLING DOCUMENT (Title, Number, Revision) QAP-17-1, Rev. 3, P04, <i>Record Source Responsibilities for QA Records</i>		* ACTIVITY EVALUATED Element 17, <i>Quality Assurance Records</i>	

* ITEM NO.	* CHARACTERISTICS TO BE EVALUATED	* REMARKS	* RESULTS
1	Through interviews and a sample review of QA Records/Records Packages submitted to the LRC, verify that the Records Sources have: <ul style="list-style-type: none"> a. Ensured that records created are legible, accurate, and complete. b. Placed the QA designator and the DI in the upper-right corner of the first page of each record, with the SCP number in the title of the document, as appropriate, including the Table of Contents (Attachment I) for a records package; c. Created a title that concisely and clearly identifies and describes the contents of the record. d. Indicated the category of the draft; on the first page of draft documents, when applicable. e. Ensured that no recorded information is obliterated due to tearing or folding of the record. When portions of a record are obliterated and cannot be replaced, verify that the Record Source has included a signed and dated statement that indicates the impact of the obliterated information on the technical meaning or content of the record. 		

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

SHEET 2 OF 8
AUDIT/SURVEILLANCE
NO HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
1 cont	<p>f. Ensured that all fields in QA forms contained information or is marked with "N/A" unless the record clearly states that only a portion of the record must be completed. (It is acceptable to write "N/A" in the first blank and draw a line through the additional blanks).</p> <p>g. Dark ink against a light background was used. (Drawings and calculations may be completed in pencil).</p> <p>h. Obtained an accession number from the LRC staff and placed it on the inside back cover or within the acknowledgement section of final technical and scientific reports prior to publication.</p> <p>i. Authenticated all QA records by one of the following methods:</p> <ul style="list-style-type: none"> • stamped, initiated, or signed and dated the documents, or • provided a statement by the responsible individual or organization attesting to the authenticity of the record if the nature of the record precludes sampling or signing. (Handwritten signatures are not required if the responsible individual or organization is clearly identified). <p>j. Processed Electronic Records by labeling externally per this procedure and providing adequate documentation to permit services and interpretation of contents. (Para. 5.1)</p>		

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

SHEET 3 OF 8
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
2	Select a sample of organizations and verify that the list of Authenticators is current. (Para. 5.2)		
3	Verify through interview, record review, and review of qualification records, that authenticators have the expertise and familiarity to attest that the information contained within a record is: a. Legible; b. Accurate; c. Complete; and d. Appropriate to the work accomplished. (Para. 3.2)		

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

SHEET 4 OF 8
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
4	<p>Through interviews and observation, verify that QA records are protected from deterioration, loss or damage in accordance with the following precautions:</p> <ul style="list-style-type: none"> a. Protect records/records-in-progress against damage from liquids and moisture. b. Keep smoking materials and other heat sources away from records/records-in-progress. c. Keep magnetic media away from sources of magnetic fields (e.g., telephones) to avoid loss of recorded information. d. Lock/secure records/records-in-progress when unattended. (Para. 5.3) 		
5	<p>Through a sample interview of Authenticators from different organizations as listed on the "List of Authenticators", evaluate rationale of what is considered an act of Authentication of Records and when a record is "complete". (Paras. 5.2.1, 5.4.3)</p>		

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

SHEET 5 OF 8
AUDIT/SURVEILLANCE
NO HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
6	<p>Verify that QA records, required by QAPs and/or other applicable procedures, are submitted to the LRC as follows:</p> <ul style="list-style-type: none"> a. Accompanied by a transmittal transferring custodianship of the record from the sender to the receiver; b. Individual records and records packages are authenticated prior to turnover to LRC. c. Drawings and oversized records are not folded. They are submitted flat or rolled, whenever possible. d. A Special Instruction Sheet (reference Attachment III) accompanies oversized, one-of-a-kind, special-processed, and electronic records being submitted to the LRC. e. Two copies of electronic records are submitted to the LRC. f. Records may be originals or copies. g. Records are submitted in the form of individual records, records package segments, or complete records packages. <p>(Paras. 5.4, 5.5, 5.6, 5.7)</p>		

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

SHEET 6 OF 8
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
7	Evaluate the rationale for the requirement to submit records to the LRC within 10 days at the Nevada Site and 20 days in other locations. (Para. 5.4.3)		
8	Verify that, Record Sources or designated individuals have made corrections to errors or any other changes by drawing a single line of dark ink through the incorrect/changed information, placing the correct information in close proximity, and dating and signing or initialing the change. (Para. 5.8)		

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

SHEET 7 OF 8
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
9	Verify that corrected QA records been re-authenticated by the Record Source and re-approved if applicable. (Para. 5.8)		
10	Verify that error corrections after submittal to the LRC, are handled using a Record Discrepancy Notice (RDN), when appropriate. (Paras. 5.9, 5.10)		

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

SHEET 8 OF 8
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
11	Verify that records identified by audit team members are: a. At the LRC b. Organized within the package. (General)		

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

PAGE 1 OF 5
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST

¹ ORGANIZATION EVALUATED CRWMS M&O	² <input checked="" type="checkbox"/> EXTERNAL	³ <input checked="" type="checkbox"/> AUDIT	PREPARED BY <u>Amelia I. Arceo</u> DATE <u>1/26/95</u> <i>Marlin Horowitz 2/1/95</i>
⁵ DATES OF EVALUATION February 7-10, 1995 (Vienna, VA) February 21-24, 1995 (Las Vegas, NV)	<input type="checkbox"/> INTERNAL	<input type="checkbox"/> SURVEILLANCE	
⁴ CONTROLLING DOCUMENT (Title, Number, Revision) QAP-17-2, Rev. 1, P02, <i>Receipt and Handling of QA Records and Records Packages</i>			⁷ ACTIVITY EVALUATED Element 17, <i>Quality Assurance Records</i>

⁸ ITEM NO.	⁹ CHARACTERISTICS TO BE EVALUATED	¹⁰ REMARKS	¹¹ RESULTS
1	Verify that the LRC is handling QA Records in accordance with this receipt control system. (Para. 5.1) a. transmittal (Para. 5.1.2) b. QA records protected in transit (Para. 5.1.3) c. records within the LRC (Para. 5.1.4) d. lost, damaged records handling (Paras. 5.1.5, 5.1.6) e. authenticator list (Para. 5.1.7) f. privileged records (Para. 5.1.8) g. special handling records (Paras. 5.1.9, 5.1.10)		
2	Verify that the LRC staff receives records/records packages from Records Sources in accordance with the M&O's QAP 17.1, YMSCO's AP-1.18Q, and/or OCRWM's QAAP 17.1 as applicable. (Para. 5.1.1)		

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

SHEET 2 OF 5
AUDIT/SURVEILLANCE
NO HQ-94-02

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
3	<p>Verify the adequacy of the process for handling Record Package segments. (Para. 5.2)</p> <ul style="list-style-type: none"> a. record package tracking numbers (Paras. 5.2.1, 5.2.2) b. transmit completed packages to Record Source (evaluate the potential dangers and loss associated with this package). (Para. 5.2.3) c. new transmittal completed when record package segments are stored for more than one year. (Para. 5.2.4) 		
4	<p>Verify that Records Packages are screened:</p> <ul style="list-style-type: none"> a. program-relevancy (Para. 5.3) b. licensing-relevancy (Para. 5.4) c. discrepancies (Para. 5.5) 		

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

SHEET 3 OF 5
AUDIT/SURVEILLANCE
NO. HQ-94-02

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
5	Verify that the LRC staff reviews each records/records package to verify compliance with criteria for the creation and submittal of records in the M&O's QAP 17-1, YMSCO's AP-1.18Q, and/or OCRWM's QAAP 17.1 as applicable. (Para. 5.5.1)		
6	Verify that discrepancies are handled using the Record Discrepancy Notice (RDN) form. (Paras. 5.5.4, 5.5.6, 5.5.7)		

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

SHEET 4 OF 5
AUDIT/SURVEILLANCE
NO HQ-94-02

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
7	Verify that the LRC performs a check for duplication of QA Records (with the Records Information System (RIS)), and for non-duplicate records an accession number. (Para. 5.6)		
8	Verify that the QA Records packages are properly transmitted to the CRF. Also verify the adequacy of the record protection during transit. (Para. 5.8)		

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

SHEET 5 OF 5
AUDIT/SURVEILLANCE
NO HQ-94-02

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
9	Verify that the access, retrieval and disclosure of QA records are controlled. (Para. 5.10)		

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

PAGE 1 OF 5
AUDIT/SURVEILLANCE
NO HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST

CRWMS M&O		<input checked="" type="checkbox"/> EXTERNAL	<input checked="" type="checkbox"/> AUDIT		
* DATES OF EVALUATION February 7-10, 1995 (Vienna, VA) February 21-24, 1995 (Las Vegas, NV)		<input type="checkbox"/> INTERNAL	<input type="checkbox"/> SURVEILLANCE	PREPARED BY <u>Amelia I. Arceo</u>	DATE <u>1/23/95</u>
* CONTROLLING DOCUMENT (Title, Number, Revision) QAP-17-5, Rev. 1, P01, <i>Indexing Quality Assurance Records</i>			' ACTIVITY EVALUATED Element 17, <i>Quality Assurance Records</i>		
ITEM NO.	CHARACTERISTICS TO BE EVALUATED	REMARKS		RESULTS	
1	Verify that QA Program records to be indexed are received by the CRF in accordance with M&O QAP-17-2. (Para. 5)				

Marlene Horrocks 2/1/95

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

SHEET 2 OF 5
AUDIT/SURVEILLANCE
NO HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
2	Verify that CRF Staff handle records in such a way as to prevent loss, damage or deterioration. (Para. 5.1.1)		
3	Verify that while records are in transit they are bound and secured. (Para. 5.1.2)		

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

SHEET 3 OF 5
AUDIT/SURVEILLANCE
NO HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
4	Verify that if a CRF Staff member determined that a record/records package is lost or damaged while in their custody, the Staff Member obtain a replacement from the record source and if it cannot be replaced, a Corrective Action Request is initiated in accordance with QAP-16-1. (Para 5.1.3)		
5	Verify the receipt and review of QA record/records packages: a) Batch sheets accompany the record/records package throughout processing. b) Records received agree with transmittal c) Discrepancies resolved before processing. (Para. 5.2)		

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

SHEET 4 OF 5
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
6	Verify that QA records are indexed into the Mail/Append Database. (Para. 5.3)		
7	Verify that the database is reviewed against the original records and completed batches are transferred to the Record Information System (RIS) after the microfilm is returned from the Imaging Center. (Para. 5.8)		

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

SHEET 5 OF 5
AUDIT/SURVEILLANCE
NO HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
8	Verify the adequacy of the process used to correct or supplement existing QA records. (Para. 5.5)		

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

PAGE 1 OF 6
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST

CRWMS M&O		<input checked="" type="checkbox"/> EXTERNAL	<input checked="" type="checkbox"/> AUDIT		
* DATES OF EVALUATION February 7-10, 1995 (Vienna, VA) February 21-24, 1995 (Las Vegas, NV)		<input type="checkbox"/> INTERNAL	<input type="checkbox"/> SURVEILLANCE	PREPARED BY <u>Amelia I. Arceo</u>	DATE <u>1/23/95</u>
* CONTROLLING DOCUMENT (Title, Number, Revision) QAP-17-6, Rev. 2 <i>Storage and Retrieval of Quality Assurance Records</i>				* ACTIVITY EVALUATED Element 17, Quality Assurance Records	
ITEM NO.	CHARACTERISTICS TO BE EVALUATED	REMARKS		RESULTS	
1	Verify that QA records: <ul style="list-style-type: none"> a) maintained in temporary storage are filed in batches or folders. b) maintained in a long term storage facility; are filed according to the long term facility's filing system. c) are secured or contained and protected to prevent loss, damage or deterioration while being processed and during transit to another location. (Para. 5.1) 				

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

SHEET 2 OF 6
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
2	Verify that the requirements for temporary storage are met. (Para. 5.2)		
3	Verify that the long term storage facility meets the design and construction requirements for a long term single storage facility or the acceptable alternatives. (Para. 5.3)		

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

SHEET 3 OF 6
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
4	Verify that access to temporary storage facilities which contain QA records is limited to those on the access list; and the access list is posted and updated when personnel changes. (Para. 5.4.1 & 5.4.3)		
5	Verify that CRF or LRC process the requests for retrieval.		

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

SHEET 4 OF 6
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
6	Verify that the transmittal of hard copy QA records for microfilming is in accordance with paragraph 5.5. (Para. 5.5)		
7	Verify that the transmittal of one-of-a-kind and special records is in accordance with requirements. (Para. 5.6)		

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

SHEET 5 OF 6
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
8	Verify that the requirements for electronic/magnetic media in a long-term storage facility is implemented. (Para. 5.7)		
9	Verify that microfilm quality is inspected every 2 years and that the CRF Manager reviews the log and initiates corrective action to replace silver masters when the tests indicate deterioration. (Para. 5.8)		

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

SHEET 6 OF 6
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
10	Verify that QA records are dispositioned in accordance with established retention schedules. (Para. 5.10)		

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

PAGE 1 OF 7
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST

1 ORGANIZATION EVALUATED CRWMS M&O	2 [X] EXTERNAL	3 [X] AUDIT	4 PREPARED BY <u>Vance Cannaday</u> DATE <u>1/27/95</u> <i>Marlin Horanor 2/1/95</i>
5 DATES OF EVALUATION Feb 7-10 & 21-24, 1995	6 [] INTERNAL	7 [] SURVEILLANCE	
8 CONTROLLING DOCUMENT (Title, Number, Revision) QAP-19-1, Rev. 3, PCN-01, Rev. 1, <i>Computer Software Verification and Validation</i>		9 ACTIVITY EVALUATED Supplement 1, Computer Software Verification and Validation	

10 ITEM NO.	11 CHARACTERISTICS TO BE EVALUATED	12 REMARKS	13 RESULTS
1	Identify the following individuals for each software project: a. Supervising Manager (Para. 5.1.1) b. Software Project Manager (Para. 5.1.3) c. V&V Manager (Para. 5.1.2) d. V&V Team Leader (Para. 5.1.2) e. V&V Team Members (Para. 5.1.3)		
2	Cross-reference the assignments with the following positions from QAP-19-4: a. Requesting Manager b. Developing Manager c. Software Developer (QAP-19-4, Paras. 5.1.2, 5.2.3.1) ↑		

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

SHEET 2 OF 7
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
3	Verify the adequacy of the process used to determine if acquired software was developed or modified in accordance with the QARD. (Para. 5.2.1)		
4	For "approved" acquired software (per QAP-19-4) verify that the V&V analyst has reviewed or conducted the verifications required. (Para. 5.2.3)		

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

SHEET 3 OF 7
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
5	Verify that for acquired software developed or modified in accordance with the QARD that the V&V Analyst has performed installation test. (Para. 5.2.3)		
6	Review the V&V Plan for the elements required. <ul style="list-style-type: none"> a. Type of software. b. Software objectives. c. V&V activities to be performed. d. Activity schedule. e. Inputs required from other organizations. f. Special tools and techniques to be used. g. V&V members assigned. h. Responsibilities assigned. i. Documents and reports to be delivered. (Para. 5.3.2)		

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

SHEET 4 OF 7
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
7	Verify that for V&V activities not performed in parallel with the software development life-cycle activities that the V&V Plan has been justified. (Para. 5.3.2)		
8	Verify approval of V&V Plan by Location QA Manager and V&V Manager. (Para. 5.3.3)		

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

SHEET 5 OF 7
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
9	<p>Verify that V&V verification checklists have been prepared and completed for the various life-cycle phases:</p> <ul style="list-style-type: none"> a. Functional requirements (Para. 5.6.2) b. Software requirements (Para. 5.7.2) c. Design verification (Para. 5.8.2) d. Code (Para. 5.9.2) e. User information (Para. 5.12.2) f. Validation test information (Para. 5.10) g. Software validation (Para. 5.11.3) h. Installation information (Para. 5.13.2) <p>(Para. 5.4)</p>		
10	<p>Verify that the Software Project Manager has provided inputs required for V&V activities to the V&V Team. (Para. 5.5.1)</p>		

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

SHEET 6 OF 7
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
11	<p>Verify turnover of documentation by V&V Team to the SCM organization after each V&V activity. (Paras. 5.6.4, 5.7.6, 5.8.6, 5.9.6, 5.11.7, 5.12.8, 5.13.8, 5.15.3)</p> <ul style="list-style-type: none"> a) Functional Requirements b) Software Requirements c) Design d) Code Listing e) Validation Test Plan & Test Results f) User Information g) Installation Manual h) V&V Report (Final) 		
12	<p>Verify that V&V reports for each life-cycle phase include items required. (Para. 5.15.1)</p> <ul style="list-style-type: none"> a) Summaries of Activity Results b) Any Problems Encountered c) Any Resolutions of Problems d) Recommendations for Solutions to Problems 		

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

SHEET 7 OF 7
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
13	Verify that QA records have been submitted to the LRC in accordance with QAP-17-1. (Para. 6.1)		
14	For acquired software, ensure that the validation test cases are not limited to developer's test cases. (NRC Open Item)		

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

PAGE 1 OF 5
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST

1 ORGANIZATION EVALUATED CRWMS M&O		2 [X] EXTERNAL	3 [X] AUDIT	4 PREPARED BY <u>Vance Cannaday</u> DATE <u>1/27/95</u> <i>Marlin Huseman 2/1/95</i>	
5 DATES OF EVALUATION Feb 7-10 & 21-24, 1995		[] INTERNAL	[] SURVEILLANCE		
6 CONTROLLING DOCUMENT (Title, Number, Revision) QAP-19-2, Rev. 3, P01, <i>Software Configuration Management</i>			7 ACTIVITY EVALUATED Supplement I, Software Configuration Management		
8 ITEM NO.	9 CHARACTERISTICS TO BE EVALUATED	10 REMARKS		11 RESULTS	
1	Verify that CSCI identifiers have been obtained from SCM by development organization. (Para. 5.2.1)				

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

SHEET 2 OF 5
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
2	Verify that SCM Turnover of each CSCI from V&V includes requirements. (Para. 5.2.4A-F)		
3	Verify that SCM has completed a software configuration audit on each CSCI. (Para. 5.2.5A-D)		

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

SHEET 3 OF 5
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
4	Verify that SCCB approval is obtained prior to use for work subject to QARD requirements. (Para. 5.2.9)		
5	Verify that baselined CSCIs are placed in the SCM Software library and entered into SCM status accounting system. (Paras. 5.2.10, 5.2.12)		

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

SHEET 4 OF 5
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
6	Review any defects documented on Change Requests (CRs) for compliance with requirements. (Para. 5.5)		
7	Verify that for any defects identified in a CSCI that adversely impacts previous applications that a CAR was initiated in accordance with QAP-16-1. (Para. 5.5.2.4)		

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

SHEET 5 OF 5
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
8	Verify implementation of media controls applied to the SCM Software Library. (Para. 5.6.2).		
9	Verify that QA records have been submitted to the LRC in accordance with QAP-17-1. (Para. 6)		

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

PAGE 1 OF 5
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST

1 ORGANIZATION EVALUATED CRWMS M&O	2 <input checked="" type="checkbox"/> EXTERNAL	3 <input checked="" type="checkbox"/> AUDIT	
4 DATES OF EVALUATION Feb 7-10 & 21-24, 1995	5 <input type="checkbox"/> INTERNAL	6 <input type="checkbox"/> SURVEILLANCE	PREPARED BY <u>Vance Cannaday</u> DATE <u>1/27/95</u> <i>Marilyn Hornean 2/1/95</i>
7 CONTROLLING DOCUMENT (Title, Number, Revision) QAP-19-3, Rev. 2, Model Validation		8 ACTIVITY EVALUATED Supplement 1, Model Validation	

9 ITEM NO.	11 CHARACTERISTICS TO BE EVALUATED	10 REMARKS	12 RESULTS
1	Verify the adequacy of the process used in determining that Model Validation is or is not required. (Paras. 5.1, 5.2.1)		
2	Identify the "Affected Office Manager" for any model validations performed. (Para. 5.2.1)		

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

SHEET 2 OF 5
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
3	Explain the relationship/interface between the "Affected Office Manager" and individuals implementing QAPs 19-1, 19-2, and 19-4.		
4	Verify that Model Validation Plans include items and discussions required by paragraphs 5.3.1 and 5.3.2. (Paras. 5.3.1, 5.3.2)		

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

SHEET 3 OF 5
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
5	Verify that Model Validation Plans are developed in accordance with QAP-3-5 and either reviewed in accordance with QAP-3-1 or peer reviewed in accordance with QAP-3-3. (Paras. 5.3.3, 5.3.4)		
6	Verify that Model Validation Team members are qualified. (Para. 5.4.2)		

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

SHEET 4 OF 5
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
7	Verify that the model validation is performed on baselined software which has already undergone V&V in accordance with QAP-19-1. (Para. 5.5.3)		
8	Verify that the model validation report is developed in accordance with QAP-3-5 and is reviewed in accordance with QAP-3-1 or peer review in accordance with QAP-3-3. (Paras. 5.6.1, 5.6.4, 5.6.5)		

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

SHEET 5 OF 5
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
9	Verify that QA records have been submitted to the LRC in accordance with QAP-17-1. (Para. 6.)		

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

PAGE 1 OF 8
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST

1 ORGANIZATION EVALUATED CRWMS M&O	2 [X] EXTERNAL	3 [X] AUDIT	4 PREPARED BY <u>Vance Cannaday</u> DATE <u>1/27/95</u> <i>Marlin Horvath 2/1/95</i>
5 DATES OF EVALUATION Feb 7-10 & 21-24, 1995	6 [] INTERNAL	7 [] SURVEILLANCE	
8 CONTROLLING DOCUMENT (Title, Number, Revision) QAP-19-4, Rev. 1, P03, <i>Software Management</i>			9 ACTIVITY EVALUATED Supplement I Software Management

11 ITEM NO.	12 CHARACTERISTICS TO BE EVALUATED	13 REMARKS	14 RESULTS
1	Identify software products subject to QAP-19-4 and whether they are treated as developed or acquired software. (Para. 5.1.1)		

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

SHEET 2 OF 8
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
2	Verify the designation of acquired vs. developed is approved by: a. Requesting Manager (Para. 5.1.2A) b. Developing Manager (Para. 5.1.2B) (Para. 5.1.2)		
3	Verify that a lifecycle plan is developed for each software product (Para. 5.2) and approved by Location QA manager, the requesting manager, and the developing manager. (Para. 5.2.7)		

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

SHEET 3 OF 8
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
4	Verify that the lifecycle plan identifies the milestones (lifecycle control points) and the documentation required at each (milestone deliverables). (Paras. 5.2G, 5.2H)		
5	Identify the lifecycle methodology (e.g., waterfall, spiral) described in the lifecycle plan. (Para. 5.2)		

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

SHEET 4 OF 8
AUDIT/SURVEILLANCE
NO. HQ-ABC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
6	For each phase selected for inclusion in the lifecycle plan, verify that documentation requirements meet the requirements of the corresponding paragraph of Subsection 5.2. (Para. 5.2)		
7	Verify that all phases of the lifecycle are addressed for developed software. (Paras. 5.6, 5.2)		

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

SHEET 5 OF 8
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
8	Verify that acquired software is categorized as "approved" or "non-approved". (Paras. 5.5.1, 5.5.2)		
9	Verify that acquired software, if in the "non-approved" category has undergone V&V activities. (Para. 5.5.5.1B)		

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

SHEET 6 OF 8
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
10	Identify the documentation allowing independent repetition of the use of software. (QARD, I.2.10.A)		
11	Verify that the software has been approved and independently reviewed to ensure applicability to the problem being solved. (QARD, I.2.10.B)		

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

SHEET 7 OF 8
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
12	Verify that the validity and traceability of the assumptions and inputs to the software have been approved and independently reviewed. (QARD, I.2.10.B)		
13	Identify the validation method used if the use of a software item falls outside the range of validation and that the validation is performed prior to use. (QARD, I.2.10.C)		

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

SHEET 8 OF 8
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
14	Verify that all QA records have been submitted to the LRC in accordance with QAP-17-1. (Para. 6.1)		

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

PAGE 1 OF 4
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST

1 ORGANIZATION EVALUATED CRWMS M&O		2 <input checked="" type="checkbox"/> EXTERNAL <input type="checkbox"/> INTERNAL	3 <input checked="" type="checkbox"/> AUDIT <input type="checkbox"/> SURVEILLANCE	4 PREPARED BY <u>Walter Coutier</u> DATE <u>1/25/95</u> <i>Marlin Horsemans 2/1/95</i>	
5 CONTROLLING DOCUMENT (Title, Number, Revision) Determination of Importance Evaluations, NLP-2-0, Rev. 00			6 ACTIVITY EVALUATED Element 3, <i>Design Control</i>		
7 ITEM NO.	8 CHARACTERISTICS TO BE EVALUATED	9 REMARKS		10 RESULTS	
1	Verify that upon identification of the need for a Determination of Importance Evaluation (DIE), the DIE Manager implements a request for design or test information as needed from the responsible organization and assigns an Analyst to perform the analysis. Confirm the process. (Para. 5.1.1)				
2	Verify the process for Determination of Importance Evaluations (DIE) utilizing QAP-3-9, the appropriate supporting analyses, and Attachment I of NLP-2-0. (Para. 5.1.4)				

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

SHEET 2 OF 4
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
3	Verify that Waste Isolation Evaluations (WIEs) and Test Interface Evaluations (TIEs) were properly developed and transmitted as design inputs. (Para. 5.1.4E)		
4	Verify that based on the completed DIE, the analyst prepared an amended Attachment II to reflect any limits or constraints on the use of TFMs. (Para. 5.1.5)		

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

SHEET 3 OF 4
AUDIT/SURVEILLANCE
NO HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
5	Verify that when specifications for procurement of temporary items are reviewed for applicability of QA controls by the DIE organization in advance of design completion, (i.e., "advance procurement"); documentation of this review is in accordance with Attachment IV of NLP-2-0. (Para. 5.1.8)		
6	Verify how the DIE M&O organization processes "preliminary design information." (Para. 6.4)		

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

SHEET 4 OF 4
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
7	Verify the processing of DIEs and associated documentation to the LRC as QA Records. (Para. 6.1)		
8	Verify that NLP-2-0 meets the requirements of QAP-2-0, QAP-2-3 and QAP-3-9.		

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

PAGE 1 OF 4
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST

1 ORGANIZATION EVALUATED CRWMS M&O	2 <input checked="" type="checkbox"/> EXTERNAL <input type="checkbox"/> INTERNAL	3 <input checked="" type="checkbox"/> AUDIT <input type="checkbox"/> SURVEILLANCE	4 PREPARED BY <u>Walter Coutier</u> DATE <u>1/25/95</u> <i>Marlin Norwood 2/1/95</i>	
5 CONTROLLING DOCUMENT (Title, Number, Revision) NLP-3-18, Rev. 1, PO3 Documentation of QA Classification/Controls on Drawings and Specifications			7 ACTIVITY EVALUATED Element 3, Design Control	
ITEM NO.	CHARACTERISTICS TO BE EVALUATED	REMARKS	RESULTS	
1	Verify that the Responsible Engineer (RE) incorporates QA classification/control information, into each drawing and specification which contains the item(s) or activities evaluated in the DIE. (Para. 5.1.2)			
2	Verify that the RE contacts the author or DIE Manager if clarification is required concerning QA Classification/control. (Para. 5.1.3)			

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

SHEET 2 OF 4
AUDIT/SURVEILLANCE
NO HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
3	Verify QA Classifications of drawings are in accordance with Para. 5.2.1 a-d.		
4	Verify that Attachments I and II are used to denote individual items or controls that need to be identified for clarity. (Para. 5.2.2)		

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

SHEET 3 OF 4
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
5	Verify QA Classifications/Controls for Specifications are in accordance with Paras. 5.3.1-5.3.5.		
6	Verify QA Classification/Controls for Design Analysis are in accordance with Para. 5.4.1 a-e.		

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

SHEET 4 OF 4
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
7	Verify completed design analysis are provided in accordance with QAP-3-8. (Para. 5.4.2)		
8	Verify there are no lifetime or non-permanent QA records generated as a result of this procedure. (Para. 6.0)		

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

PAGE 1 OF 2
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST

1 ORGANIZATION EVALUATED CRWMS M&O		2 <input checked="" type="checkbox"/> EXTERNAL	3 <input checked="" type="checkbox"/> AUDIT	4 PREPARED BY <u>Walter Coutier</u> DATE <u>1/25/95</u> <i>Marlin Houseman 2/1/95</i>	
5 DATES OF EVALUATION February 21-24, 1995		<input type="checkbox"/> INTERNAL	<input type="checkbox"/> SURVEILLANCE		
6 CONTROLLING DOCUMENT (Title, Number, Revision) NLP-3-19, Rev. 0 Closure of Review Comments on ESF Title I Design			7 ACTIVITY EVALUATED Element 3, Design Control		
8 ITEM NO.	9 CHARACTERISTICS TO BE EVALUATED	10 REMARKS		11 RESULTS	
1	Verify that all ESF Title I design comments have been closed.				
2	Evaluate the adequacy of the Open Comment Tracking System. (Para. 5.4.1)				

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

SHEET 2 OF 2
AUDIT/SURVEILLANCE
NO HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
3	Identify the QA records generated as a result of implementing NLP-3-19 and verify that QA records have been submitted to the LRC in accordance with QAP-17-1. (Para. 6)		

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

PAGE 1 OF 2
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST

1 ORGANIZATION EVALUATED CRWMS M&O		2 <input checked="" type="checkbox"/> EXTERNAL	3 <input checked="" type="checkbox"/> AUDIT		
4 DATES OF EVALUATION February 21-24, 1995		5 <input type="checkbox"/> INTERNAL	6 <input type="checkbox"/> SURVEILLANCE	PREPARED BY <u>Walter Coutier</u> DATE <u>1/31/95</u> <i>Marlin Horseman 2/1/95</i>	
7 CONTROLLING DOCUMENT (Title, Number, Revision) NLP-3-24, Rev. 1 Approved Drawing and Specification Inputs List Processing			8 ACTIVITY EVALUATED Element 3, Design Control		
9 ITEM NO.	10 CHARACTERISTICS TO BE EVALUATED	11 REMARKS		12 RESULTS	
1	Verify the originator of drawings or specifications provides transmission of Inputs List to the BFD in accordance with Para. 5.1.1 a-d.				
2	Verify the BFD preparer incorporates the design inputs on the approved IL into the BFD in accordance with NLP-3-20. (Para. 5.2.1 a) (Para. 5.4.1)				

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

SHEET 2 OF 2
AUDIT/SURVEILLANCE
NO HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
3	Verify the originator of drawings or specifications provides Inputs List changes in accordance with Para. 5.3.1 a-d.		
4	Verify the following QA records are generated and submitted to the LRC by EDC in accordance with QAP-17-1 (Para. 6): a) Lifetime - DOE letter endorsement accepting ILs. b) Non-permanent - IOC Transmitting ILs.		

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

PAGE 1 OF 3
AUDIT/SURVEILLANCE
NO HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST

1 ORGANIZATION EVALUATED CRWMS M&O	2 <input checked="" type="checkbox"/> EXTERNAL <input type="checkbox"/> INTERNAL	3 <input checked="" type="checkbox"/> AUDIT <input type="checkbox"/> SURVEILLANCE	4 PREPARED BY <u>F.H. Lentz</u> DATE <u>2/1/95</u> <i>Marlin Horseyman 2/2/95</i>	
5 CONTROLLING DOCUMENT (Title, Number, Revision) DOE/RW-0333P Quality Assurance Requirements and Description (QARD), Rev. 1			7 ACTIVITY EVALUATED Corrective Action for M&O Open Issues	
8 ITEM NO.	9 CHARACTERISTICS TO BE EVALUATED	10 REMARKS	11 RESULTS	
1	Inadequate identification and control of unverified drawings or parts of drawings (Reference: CAR 94-QN-C-032) (Reference: CAR 94-QN-C-040)			
2	Inadequate resolution or incorporation of mandatory comments. (Reference: CAR 94-QN-C-049)			

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

SHEET 2 OF 3
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
3	Inadequate documentation of required reading/self-study prior to performing work to M&O QA program. This condition is repetitive (7 CARs sited) and indicates an adverse trend. (Reference: CAR 94-QV-C-018)		
4	Inadequate compliance to Design Control procedures. An adverse trend (16 CARs sited) has been identified. (Reference: CAR 94-QV-C-044)		

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

SHEET 3 OF 3
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
5	Inadequate preparation of Design Control procedures. An adverse trend (5 CARs sited) has been identified. (Reference: CAR 94-QV-C-045)		
6	Inadequate implementation of QA Program procedures related to software activities. An adverse trend (6 CARs sited) has been identified. (Reference: CAR 95-QV-C-003)		

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

PAGE 1 OF 4
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST

¹ ORGANIZATION EVALUATED CRWMS M&O	² <input checked="" type="checkbox"/> EXTERNAL <input type="checkbox"/> INTERNAL	³ <input checked="" type="checkbox"/> AUDIT <input type="checkbox"/> SURVEILLANCE	⁴ PREPARED BY <u>F.H. Lentz</u> DATE <u>1/27/95</u> <i>Marlin Norcross 2/2/95</i>
⁵ DATES OF EVALUATION February 7-24, 1995	⁶ CONTROLLING DOCUMENT (Title, Number, Revision) DOE/RW-0333P Quality Assurance Requirements and Description (QARD), Rev. 1		
⁷ ACTIVITY EVALUATED Implementation of Revisions to QA Procedures			

ITEM NO.	CHARACTERISTICS TO BE EVALUATED	REMARKS	RESULTS
1	Evaluate deletion of certain criteria requirements in Attachments of QAP-2-3, Rev. 06, P02, <i>Classification of Permanent Items</i> .		
2	Evaluate the changes made in Revision 5 of QAP-3-1: <ul style="list-style-type: none"> • Qualification of reviewers • Documentation of reading/training • Certification of reviewer qualifications 		

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

SHEET 2 OF 4
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
3	Verify how the Department Manager makes a determination that a design verification or reverification is required. (QAP-3-2, R5, Para. 5.1.1)		
4	Verify the process for design verification by: <ul style="list-style-type: none">• Design Review (Para. 5.4)• Use of Alternate Calculations (Para. 5.5)• Qualification Testing (Para. 5.6) (QAP-3-2, R5)		

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

SHEET 3 OF 4
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
5	Verify that Design Input Data Transmittal identifies: <ul style="list-style-type: none"> • Assumptions as "TBD/TBVs" • Design information as qualified for use • Authorization to release unqualified design input (QAP-3-12, R4, para. 5.3.2 & 5.4.3) 		
6	Verify that drawings identify unqualified data and assumptions using "TBD/TBVs". (QAP-3-10, R4, Para. 5.1.3c)		

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

SHEET 4 OF 4
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
7	Verify that QA concurs with completed drawing. (QAP-3-10, R4, Para. 5.7)		

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

PAGE 1 OF 4
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST

1 ORGANIZATION EVALUATED CRWMS M&O		2 [x] EXTERNAL	3 [x] AUDIT		
4 DATES OF EVALUATION February 7-24, 1995		[] INTERNAL	[] SURVEILLANCE	PREPARED BY <u>F.H. Lentz</u> DATE <u>1/27/95</u> <i>Marlin Housman 2/1/95</i>	
5 CONTROLLING DOCUMENT (Title, Number, Revision) DOE/RW-0333P Quality Assurance Requirements and Description (QARD), Rev. 1				6 ACTIVITY EVALUATED Corrective Action for Open Deficiencies; Vienna, VA	
7 ITEM NO.	8 CHARACTERISTICS TO BE EVALUATED	9 REMARKS		10 RESULTS	
1	<ul style="list-style-type: none"> • Inadequate evaluation of CAR response • Inadequate verification of corrective action • Inadequate CAR investigative action (Reference: CAR HQ-94-008 and CAR HQ-95-003)				
2	Inadequate documented process to release TBD/TBR for the SRD (Reference: CAR HQ-94-011)				

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

SHEET 2 OF 4
AUDIT/SURVEILLANCE
NO HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
3	<ul style="list-style-type: none">Inadequate rationale for not using a TDPP in accordance with QAP-3-5.Non-compliance with M&O QA procedures during preparation and issuance of MPC RFP. (Reference: CAR HQ-94-013)		
4	Inadequate QAP 2-0 analyses (Reference: CAR HQ-94-015)		

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

SHEET 3 OF 4
AUDIT/SURVEILLANCE
NO. HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
5	Ineffective Trend Program (Reference: CAR HQ-94-017)		
6	Inadequate checking and reviewing process in accordance with M&O QAP-3-9. (Reference: CAR HQ-94-018)		

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

SHEET 4 OF 4
AUDIT/SURVEILLANCE
NO HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
7	Inadequate compliance to M&O QAP 3-12 (Reference: CAR HQ-94-019)		
8	Inadequate description of sequential steps and relationship among M&O QA procedures to implement the requirements of Section SI (QARD). (Reference: CAR HQ-95-001)		

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

PAGE 1 OF 5
AUDIT/SURVEILLANCE
NO HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST

* ORGANIZATION EVALUATED CRWMS M&O	[x] EXTERNAL	[x] AUDIT	
* DATES OF EVALUATION February 7-24, 1995	[] INTERNAL	[] SURVEILLANCE	PREPARED BY <u>FH Lentz</u> DATE <u>1/27/95</u> <i>Marlin Horvath 1/31/95</i>

* CONTROLLING DOCUMENT (Title, Number, Revision) DOE/RW-0333P Quality Assurance Requirements and Description (QARD), Rev. 1	' ACTIVITY EVALUATED Corrective Action for Open Deficiencies; Las Vegas, NV
--	--

ITEM NO.	CHARACTERISTICS TO BE EVALUATED	REMARKS	RESULTS
1	Repetitive Deficiencies <ul style="list-style-type: none"> Inadequate addressing of QARD requirements in QA procedures Inadequate QA procedures for implementing quality affecting activities (Reference: CAR YM-93-070)		
2	Inadequate documentation and tracking of validation status of data used in Waste Isolation Impact Evaluations. (Reference : CAR YM-94-015)		

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

SHEET 2 OF 5
AUDIT/SURVEILLANCE
NO HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
3	Inadequate checking and reviewing of 2C package in accordance with M&O QA procedures. (Reference: CAR YM-94-065)		
4	Inadequate evaluation of test interference impacts resulting from not adhering to the controls specified. (Reference: CAR YM-94-066)		

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

SHEET 3 OF 5
AUDIT/SURVEILLANCE
NO HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
5	Inadequate Q-Specification for Refuge Chamber Specification. (Reference: (CAR YM-94-067)		
6	Inadequate QA procedure to implement SIII requirements of the QARD. (Reference: CAR YM-94-070)		

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

SHEET 4 OF 5
AUDIT/SURVEILLANCE
NO HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
7	Inadequate design validation on Starter Tunnel before use as input to the design of the North Ramp Package 2C. (Reference: CAR YM-94-073)		
8	Inadequate identification or definition of mining standards in Determination of Importance Evaluation for Package 2C. (Reference: CAR YM-94-075)		

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

SHEET 5 OF 5
AUDIT/SURVEILLANCE
NO HQ-ARC-95-04

QUALITY ASSURANCE CHECKLIST (continuation sheet)

ITEM NO.	CHARACTERISTIC TO BE EVALUATED	REMARKS Record objective evidence reviewed, method of verification, personnel contacted	RESULTS
9	Inadequate verification of Macysma software prior to use in Waste Isolation Evaluations. (Reference: CAR YM-94-076)		
10	Ineffective implementation of QA program documents for the control of design activities. (Reference: CAR YM-95-007)		