

QA:L

**U.S. DEPARTMENT OF ENERGY
OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT
OFFICE OF QUALITY ASSURANCE**

AUDIT REPORT

OF

**CIVILIAN RADIOACTIVE WASTE MANAGEMENT SYSTEM
MANAGEMENT AND OPERATING CONTRACTOR**

AT

**LAS VEGAS, NEVADA
AND
VIENNA, VIRGINIA**

AUDIT NUMBER M&O-ARC-97-09

JANUARY 27 THROUGH FEBRUARY 7, 1997

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Approved by: R.W. Clapp Date: 3/4/97
for Donald G. Horton
Director
Office of Quality Assurance

Enclosure

1.0 EXECUTIVE SUMMARY

As a result of Quality Assurance (QA) Audit M&O-ARC-97-09, the audit team determined that overall, with exception of those areas where deficiencies existed, the Civilian Radioactive Waste Management System Management and Operating Contractor (CRWMS M&O) is satisfactorily and effectively implementing applicable portions of the QA Program described in the U.S. Department of Energy (DOE) Office of Civilian Waste Management (OCRWM) Quality Assurance Requirements and Description (QARD), DOE/RW-0333P, Revision 5, and implementing procedures. Implementation of QA Program Elements 1.0, 2.0, 3.0, 5.0, 6.0, 12.0, 15.0, 16.0, 17.0, and Supplements I, II, and III was satisfactory. Implementation of QA Program Elements 4.0 and 7.0 was found to be unsatisfactory due to the failure of the CRWMS M&O to apply controls required by the QARD to the procurement of services supporting activities that are subject to QARD requirements. It was determined that there was no implementation of QA Program Element 10.0, Supplement V or Appendix C by the CRWMS M&O.

In addition, the audit team found that implementation of QA Program Element 2.0 in the area of QA Surveillances; QA Program Element 3.0 in the areas of Engineering Document Control and Configuration Management; and Supplement III in the area of Meteorological Monitoring was particularly effective.

The audit team identified two deficiencies during the audit that resulted in the issuance of one Corrective Action Request (CAR) described in Section 5.5.1 and one Deficiency Report (DR) described in Section 5.5.2. There were five deficiencies identified by the audit team and corrected prior to the postaudit meeting. These five conditions are described in Section 5.5.4 of this report. Additionally, there were seven recommendations resulting from the audit which are documented in Section 6.0 of this report.

2.0 SCOPE

The audit was conducted to evaluate the adequacy and effectiveness of the CRWMS M&O in implementing the QA Program described in the QARD. The audit was conducted at the CRWMS M&O offices at Las Vegas, Nevada, and Vienna, Virginia. Although activities subject to QA Program requirements are also performed by the CRWMS M&O at Charlotte, North Carolina, an evaluation of these activities was recently accomplished during performance-based audit M&O-ARP-97-04 conducted at the Charlotte location November 11-14, 1996, by an audit team from the Office of Quality Assurance (OQA). Discussions with the Audit Team Leader (ATL) of audit M&O-ARP-97-04 indicated that in addition to evaluation of critical process steps and product evaluation, adequacy and effectiveness of QA Program implementation were also evaluated during the audit. As a result of this discussion, it was determined that this compliance-based audit of CRWMS M&O activities would be performed only at the Las Vegas and Vienna locations to avoid duplication of effort in the audit process.

The following QA program elements/requirements were evaluated during the audit, in accordance with the approved audit plan.

QA PROGRAM ELEMENTS/REQUIREMENTS

- 1.0 Organization
- 2.0 Quality Assurance Program
- 3.0 Design Control
- 4.0 Procurement Document Control
- 5.0 Implementing Documents
- 6.0 Document Control
- 7.0 Control of Purchased Items and Services
- 10.0 Inspection
- 12.0 Control of Measuring and Test Equipment
- 15.0 Nonconformances
- 16.0 Corrective Action
- 17.0 Quality Assurance Records
- Supplement I Software
- Supplement II Sample Control
- Supplement III Scientific Investigation
- Supplement V Control of the Electronic Management of Data
- Appendix C Mined Geologic Disposal System

The following QA Program elements/requirements were not reviewed during the audit because they were found to be not applicable, since the CRWMS M&O currently has no activities to which these elements apply.

- 8.0 Identification and Control of Items
- 9.0 Control of Special Processes
- 11.0 Test Control
- 13.0 Handling, Storage and Shipping
- 14.0 Inspection, Test and Operating Status
- 18.0 Audits
- Supplement IV Field Surveying
- Appendix A High Level Waste Form Production
- Appendix B Storage and Transportation

3.0 AUDIT TEAM AND OBSERVERS

The following is a list of audit team members, their assigned areas of responsibility.

<u>Name/Title/Organization</u>	<u>QA Program Elements/Requirements</u>
Charles C. Warren, ATL, OQA	1.0, 2.0, 16.0, Las Vegas (LV) and Vienna (V)
James Blaylock, Auditor, OQA	10.0, 12.0, 15.0, 16.0 (LV)

James J. George, Auditor, OQA	3.0, 17.0, Supplement I, (V)
Donald J. Harris, Auditor, OQA	Supplement II, Supplement III (LV)
Stephen D. Harris, Auditor, OQA	17.0, Supplement I (LV)
Richard E. Powe, Auditor, OQA	3.0 (LV)
Franklin B. Smith, Auditor, OQA	Supplement III, Supplement V (LV)
Lester W. Wagner, Auditor, OQA	4.0, 5.0, 6.0, 7.0 (LV and V)

4.0 AUDIT MEETINGS AND PERSONNEL CONTACTED

A preaudit meeting was held at the CRWMS M&O offices in Las Vegas, Nevada, on January 27, 1997, and in Vienna, Virginia, on February 4, 1997. Daily debriefing and coordination meetings were held with CRWMS M&O management and staff, and daily audit team meetings were held to discuss audit status. A preliminary postaudit meeting was held at Las Vegas, Nevada, on January 31, 1997, and the audit was concluded with a final postaudit meeting held at Vienna, Virginia, on February 7, 1997. The final postaudit meeting was also attended by CRWMS M&O and OCRWM OQA personnel in Las Vegas via video conferencing. Personnel contacted during the audit are listed in Attachment I. The list includes those who attended preaudit and postaudit meetings.

5.0 SUMMARY OF AUDIT RESULTS

5.1 Program effectiveness

The audit team concluded that overall, with the exception of those Program Elements found unsatisfactory, the CRWMS M&O is adequately and effectively implementing the QA Program for the scope of this audit. The results for each program element evaluated are contained in Attachment 2, Summary of Audit Results.

5.2 Stop Work or Immediate Corrective Actions Taken

There were no Stop Work Orders, immediate corrective actions, or related additional items resulting from this audit.

5.3 QA Program Audit Activities

A summary table of audit results is provided in Attachment 2. The audit checklists contain details of the audit evaluation along with identification of the objective evidence reviewed. The checklists are maintained as QA Records.

5.4 Technical Audit Activities

There were no technical areas evaluated during this audit.

5.5 Summary of Deficiencies

The audit team identified two deficiencies during the audit for which one CAR and one DR have been issued. Five additional deficiencies were identified and corrected prior to the postaudit meeting.

Synopsis of deficiencies documented as a CAR and DR and those corrected during the audit are detailed below. The CAR and DR have been transmitted under separate letters.

5.5.1 Corrective Action Requests

CARYM-97-C-001

Controls required by the QARD and CRWMS M&O procedures were not applied to procurements of services supporting activities subject to QARD requirements.

5.5.2 Deficiency Reports

DRYM-97-D-026

Conditions adverse to quality were documented on Performance Reports by CRWMS M&O personnel even though more than remedial action was required to resolve the conditions and, therefore, should have been documented on deficiency reports.

5.5.3 Performance Reports

None.

5.5.4 Deficiencies Corrected During the Audit

Deficiencies considered isolated in nature and only requiring remedial action can be corrected during the audit. The following deficiencies were identified and corrected during the audit:

1. Contrary to the requirements of Sections 5.2.1.E and 6.1 of Quality Administrative Procedure (QAP)-2-1, Revision 5, "Indoctrination and Training," one required Reading/Self Study Record for a CRWMS M&O Procedure revision was not on file as a QA Record for one CRWMS M&O employee performing work controlled by the procedure and subject to QA Requirements. This condition was corrected by the employee locating a copy of the completed Reading/Self Study Record and transmitting it to the Records Center.

2. Contrary to the requirements of Section 5.1.B of QAP-7-0, Revision 0, "Procurement Control Process," the procurement documents for one quality related procurement were not safeguarded by being stored in a one-hour fire rated cabinet. This condition was corrected by transferring these records to the CRWMS M&O records vault for temporary storage until the procurement activity is completed and the documents are submitted as records.
3. Contrary to the requirements of Section 16.2.3.B of the QARD, Revision 5, one CRWMS M&O issued DR did not have corrective action completed as soon as practical by responsible management. This DR (LVMO-96-D-039) was issued on May 24, 1996, and remained open at the time of the audit with four extension requests for completion of corrective action granted to the CRWMS M&O responsible management. This condition was corrected by completing corrective action, performing verification of this action and closing the DR.
4. Contrary to the requirements of Section I.2.8 of the QARD, Revision 5, the control of the use of software was not sufficiently identified in CRWMS M&O procedures for scientific investigation activities. This condition was corrected by issuance of a CRWMS M&O QAP for scientific investigation control that addresses the control of the use of software and by revision of the QAP for scientific notebooks that clarifies requirements relative to the use of software.
5. Contrary to Section 4.1 of Nevada Work Instruction (NWI)-MET-006Q, Revision 0, ICN 1, "Meteorological Monitoring: Reporting Formats," a cover letter and Technical Data Information Form were not included in the records transmittal for the Meteorological 95 Summary Report. This condition was corrected by submitting a supplement to the records package to include these required documents.

6.0 RECOMMENDATIONS

The following recommendations resulted from the audit and are presented for consideration by CRWMS M&O management:

1. NLP-3-15, Revision 3, "To Be Verified (TBV) and To Be Determined (TBD) Monitoring," requires the establishment of an estimated completion date for clearing the TBV/TBD and generation of a monthly status report; however, there is no closed-loop process identified whereby someone is held accountable for either completing action to clear the TBV/TBD or establishing a new estimated completion date. In other words, it is not clear what management does with the

status report. It is recommended that CRWMS M&O management consider development of a process whereby TBV/TBD action is tracked to completion.

2. QAP-3-5, Revision 6, "Development of Technical Documents," establishes several methods for development of a technical document. One of those methods is to first develop a Technical Document Preparation Plan (TDPP). The QAP also provides a list of the minimum content of the technical document which includes the topic REFERENCES (refer to QAP-3.5, 5.2.C.6). It was noted during the audit that there was inconsistency in implementation in that one technical document referenced the TDPP used to develop it while another did not. It is recommended that CRWMS M&O management consider the establishment of guidelines for the REFERENCES by adding words similar to the following to 5.2.C.6 of the QAP: "The document (e.g., TDPP or IOC) used to develop the technical document should be referenced."
3. QAP-3-12, Revision 7, "Transmittal of Design Input," establishes the methods used for tracking requests for design input and correctly requires that the individual responding to the request keep the receiver of the information informed when the design input information is changed; however, the procedure is silent regarding accountability for or tracking of requests. CRWMS M&O management has recognized the need to keep track of what has been requested and has started to centralize this effort. It is recommended that CRWMS M&O management consider development of a process within the QAP whereby requests for design input are tracked to completion.
4. When the Mined Geologic Disposal System Advanced Conceptual Design Report (B00000000-01717-5705-00027, Revision 0) was developed several procedures were revised to allow for **not** documenting each TBD/TBV within the report and a statement was added within the report that reads:

"The contents of this report represent conceptual design information that has been developed to date, and may be used to guide future design activities. Use of any data, however, from this report for input into documents that support construction, fabrication, and procurement are required to be controlled in accordance with NLP-3-15, Revision 3. Because this report uses unqualified inputs and data, the entire report must be treated as unqualified."

This statement is buried within the report and not on the front cover. This renders the report almost useless for quality work and the placement of the note could result in many useless man-hours of work whereby someone uses the report as if it contained qualified data. It is recommended that CRWMS M&O management consider revising the report to place the statement in a more conspicuous location and/or add the actual TBV/TBD indicators.

5. **CRWMS M&O Nevada Line Procedure (NLP)-17-5, Revision 3, "Storage and Retrieval of Quality Assurance Records by a Records Storage Service Supplier,"** requires that the Records Processing Center Supervisor insure that magnetic media in storage be retrieved, cleaned and rewound at intervals not to exceed three and one-half years. This requirement applies only to reels of tape and does not apply to other magnetic media in storage such as floppy discs, micro cassettes and audio/video tapes. It is recommended that this section of the procedure be modified to be specific for the type of magnetic media being serviced to exclude any not needing to be cleaned or rewound.
6. To avoid confusion, QAP-17-6, Revision 3, "Protection, Retrieval and Retention of Inclusionary Records," should be revised to clarify how the allowable time for retention of QA Records in temporary storage beyond the 90-day limit set in OCRWM Administrative Procedure AP-17.1Q, Revision 0, will be implemented.
7. During the audit, it was noted that the CRWMS M&O was preparing the Geologic Nodal Information Study and Evaluation System (GENISES) and the Reference Information Base (RIB) databases for online access. Review of this activity indicated that QARD Supplement V controls were not in place procedurally for such online databases. This condition was brought to the attention of M&O management and a recommendation was made that QARD Supplement V controls be in place procedurally prior to allowing online access to GENISES and RIB.

7.0 LIST OF ATTACHMENTS

- Attachment 1: Personnel Contacted During the Audit
- Attachment 2: Summary of Audit Results

ATTACHMENT 1

Personnel Contacted During the Audit
Las Vegas

<u>Name</u>	<u>Organization/Title</u>	<u>Preaudit Meeting</u>	<u>Contacted During Audit</u>	<u>Preliminary Postaudit Meeting</u>
Abend, G.	M&O/QA Technical Specialist	X	X	X
Arth, F.	M&O/QA Technical Specialist	X	X	X
Badredine, T.	M&O/RPC Supervisor		X	X
Bahney, R.	M&O/WP Development Staff		X	
Bailey, J.	M&O/E&IO Deputy Manager	X	X	X
Bartley, C.	M&O/QA Specialist		X	
Beall, K.	M&O/R&ICF Staff		X	
Benton, H.	M&O/WP Design Manager	X		X
Berlien, R.	M&O/QA Surveillance Lead	X	X	X
Bhjattacharyya, K.	M&O/RD Manager		X	
Blaylock, J.	OQA/Auditor	X		X
Bodnar, S.	M&O/TDM Manager		X	
Bonabian, S.	M&O/ESF Subsurface Staff		X	
Bowman, G.	M&O/R&ICF Staff		X	
Brees, D.	M&O/REFP Staff		X	
Carlisle, G.	M&O/R&ICF Staff		X	
Chandler, D.	M&O/SO Manager		X	
L. Croft	M&O/REFP Manager	X	X	X
Cuba, R.	M&O/TDM Staff		X	
Dahlberg, P.	M&O/QA Specialist	X	X	X
Datta, R.	M&O/G&V Staff		X	
De Leon, M.	M&O/MGDS Staff	X		
Dembowski, E.	M&O/R&ICF Staff		X	
Donaldson, G.	M&O/REFP Staff		X	
Dulock, V.	M&O/MGDS PE Manager	X		X
Ebner, C.	M&O/RPC Staff		X	
Franks, M.	M&O/QA Technical Specialist	X	X	X
Foust, L.	M&O/YMSC AGM	X	X	
Fransioli, P.	M&O/REFP Staff		X	
Ferguson, E.	M&O/REFP Staff		X	
Garrett, C.	M&O/Title III Design Staff		X	
Glasser, W.	M&O/QA Site Representative		X	X
Gilstrap, O.	M&O/QA Manager, Nevada	X	X	X
Greene, H.	OQA/Verification Manager	X		X
Hackbert, D.	M&O/QA Specialist	X	X	X
Harris, D.	OQA/Auditor	X		X
Harris, M.	M&O/ES&RP Manager	X	X	X
Harris, S.	OQA/Auditor	X		X
Hastings, P.	M&O/MGDS SA Manager	X	X	X

<u>Name</u>	<u>Organization/Title</u>	<u>Preaudit Meeting</u>	<u>Contacted During Audit</u>	<u>Preliminary Postaudit Meeting</u>
Hayes, L.	M&O/MGDS SPO Manager	X	X	
Helms, R.	M&O/SO Senior Staff			
Henderson, R.	M&O/Procurement Manager		X	
Henning, R.	M&O/H&C Staff		X	
Hudson, W.	OQA/Deputy Program Manager	X		
Hunt, W.	M&O/QA Specialist		X	
Jerome, K.	M&O/TIC Staff		X	
Justice, J.	M&O/Training Records Supervisor	X	X	X
Justice, R.	M&O/QA Engineer		X	
Kettell, R.	OQA/Senior QA Specialist		X	
LeFever, J.	M&O/SC&O Staff	X		
Lewis, C.	M&O/SA&M Staff		X	
Lewis, R.	M&O/TDM Staff		X	
Linden, L.	M&O/SA&M Staff		X	
Lugo, C.	M&O/P&P Manager	X		
Lugo, M.	M&O/RO Deputy Manager			X
Mann, E.	M&O/RO Senior Staff	X		
McConnell, K.	M&O/RPC Staff		X	
McGoldrick	M&O/Procurement Staff		X	
McGonigle, B.	M&O/SA&M Staff		X	
Morgan, R.	M&O/QA Manager	X	X	X
Morton, R.	M&O/ES&RP Staff		X	
Meller, T.	M&O/Records Services Staff		X	
Penovich, M.	M&O/Training Supervisor	X		
Pierce, P.	M&O/RD Staff		X	
Piniol, D.	M&O/Records Services Staff		X	
Powe, R.	OQA/Auditor	X		X
Prowell, G.	M&O/REFP Staff		X	
Pye, J.	M&O/ESF Subsurface Staff		X	
Quittmeyer, R.	M&O/Geology Staff		X	
Reynolds, T.	M&O/Field Test Management Staff		X	
Rodgers, T.	M&O/QA Engineer		X	X
Salchak, J.	M&O/Engineering Services Manager			X
Sandifer, R.	M&O/SC&O Manager		X	X
Segrest, A.	M&O/MGDS Development Manager	X	X	
Smith, F.	OQA/Auditor	X		X
Spencer, R.	M&O/SA&M Staff		X	
Stafford, H.	M&O/IM Manager	X	X	
Stahl, D.	M&O/WPM Manager	X		
Taylor, R.	M&O/SC&O Staff	X		
VanBibber, D.	M&O/REFP Management Specialist	X	X	
Verden, J.	M&O/RM Manager	X		

<u>Name</u>	<u>Organization/Title</u>	<u>Preaudit Meeting</u>	<u>Contacted During Audit</u>	<u>Preliminary Postaudit Meeting</u>
Wagner, L.	OQA/Auditor	X		X
Wagster, R.	M&O/MGDS Development Staff		X	
Warren, C.	OQA/ATL	X		X
Wemheuer, R.	M&O/MGDS SA Staff		X	
Wiggins, J.	M&O/TDM Staff		X	
Woods, M.	M&O/EDC Lead		X	
Yunker, J.	M&O/RO Manager	X		
Zinkevich, F.	M&O/QA Engineer	X	X	

LEGEND:

AGM	Assistant General Manager
BM	Baseline Management
EDC	Engineering Document Control
E&IO	Engineering & Integration Operations
ESF	Exploratory Studies Facility
ES&RP	Environment Safety & Regional Programs
G&V	Geochemistry & Volcanism
H&C	Hydrology & Climate
IM	Information Management
IMS	Information Management Services
MGDS	Mined Geologic Disposal System
M&O	CRWMS M&O
M&SS	Management & Support Services
PE	Project Engineering
P&P	Planning & Performance
RD	Repository Design
REFP	Rad/Environmental Field Programs
R&ICF	Requirements & Integration/Configuration Management
RM	Records Management
RO	Regulatory Operations
RPC	Records Processing Center
SA	Safety Assurance
SA&I	System Analysis & Integration
SA&M	Sample Acquisition & Management
SC&O	Site Construction & Operations
S&E	Science & Engineering
SO	Support Operations
SPO	Scientific Program Operations
TDM	Technical Data Management
TI	Transportation Initiative
TIC	Technical Information Center
WM&I	Waste Management & Integration
WP	Waste Package
WPM	Waste Package Materials
YMSC	Yucca Mountain Site Characterization
(X)	Attended Final Postaudit Meeting Via Video Conference In Las Vegas, NV

ATTACHMENT 1

Personnel Contacted During the Audit
Vienna

<u>Name</u>	<u>Organization/Title</u>	<u>Preaudit Meeting</u>	<u>Contacted During Audit</u>	<u>Final Postaudit Meeting</u>
Abend, G.	M&O/QA Technical Specialist			(X)
Blandford, J.	M&O/Deputy AGM	X	X	X
Blaylock, J.	OQA/Auditor			(X)
Berlien, R.	M&O/QA Surveillance Lead			(X)
Boyt, G.	M&O/TI Staff	X		
Carruth, G.	M&O/Task Leader	X		X
Cassidy, J.	M&O/QA Engineer	X	X	X
Clark, J.	M&O/WM&I Staff		X	
Clark, R.	OQA/Deputy Director			(X)
Dulock, V.	M&O/PE Manager			(X)
Eble, R.	M&O/Engineering Supervisor		X	
Franks, M.	M&O/QA Tech Specialist			(X)
Foust, L.	M&O/YMSC AGM			(X)
George, J.	OQA/Auditor	X		X
Gibson, S.	M&O/RPC Supervisor	X	X	X
Gillespie, S.	M&O/SA&I Staff		X	
Gilstrap, O.	M&O/QA Manager, Nevada			(X)
Greene, H.	OQA/QA Verification Manager			(X)
Harris, S.	OQA/Auditor			(X)
Hayes, L.	M&O/SPO Manager			(X)
Heath, C.	M&O/WM&I AGM	X		X
Johnson, R.	M&O/Nuclear Systems Engineer		X	
Kerrigan, C.	M&O/IMS Manager	X		X
Lancaster, D.	M&O/Burn-up Credit Manager		X	
Lugo, M.	M&O/RO Deputy Manager			(X)
Meisenheimer, R.	M&O/Task Leader	X		
Morgan, R.	M&O/QA Manager	X	X	(X)
Nobles, S.	M&O/Purchasing Staff		X	
Penhaker, J.	M&O/BM Manager	X	X	
Rodgers, T.	M&O/QA Engineer			(X)
Sandifer, R.	M&O/SC&O Manager			(X)
Shephard, M.	M&O/Records Manager	X	X	X
Shupe, W.	M&O/Subcontract Manager		X	X
Stallings, L.	M&O/QA Engineering Specialist	X	X	
Stewart, S.	M&O/Records Technician	X	X	X
Strickler, R.	M&O/General Manager	X	X	
Tayfun, A.	M&O/M&SS Manager	X	X	X
Taylor, R.	M&O/SC&O Staff			(X)
Teer, B.	M&O/Task Leader	X		
Voegele, M.	M&O/Deputy AGM			(X)

<u>Name</u>	<u>Organization/Title</u>	<u>Preaudit Meeting</u>	<u>Contacted During Audit</u>	<u>Preliminary Postaudit Meeting</u>
Wagner, L.	OQA/Auditor	X		X
Warren, C.	OQA/ATL	X		X
Wisenburg, M.	M&O/S&E Manager	X		X
White, P.	M&O/QA Senior Specialist	X	X	X

LEGEND:

See Page 11.

ATTACHMENT 2
Summary of Audit Results
For Procedural Compliance Evaluations

Element	Implementing Documents	Details (Checklist)	Deficiencies	Recommendations	Program Adequacy	Procedure Compliance	Overall
1	QAP-1-0, Rev. 4	pgs. 1-4 (L) pgs. 1-4 (V)	N	N	SAT	SAT	SAT
			N	N	SAT	SAT	
2	QAP-2-0, Rev. 3	pgs. 5-6 (L) pgs. 5-6 (V)	N	N	SAT	SAT	SAT
			N	N	SAT	SAT	
	QAP-2-1, Rev. 5	pgs. 6 (L) pgs. 6 (V)	CDA#1	N	SAT	SAT	
			N	N	SAT	SAT	
	QAP-2-2, Rev. 2	pgs. 6 (L) pgs. 6 (V)	N	N	SAT	SAT	
N			N	SAT	SAT		
QAP-2-5, Rev. 5	pgs. 7-10 (L) pgs. 7-10 (V)	N	N	SAT	SAT		
NLP-2-3, Rev. 1	pgs. 11-13 (L)	N	N	SAT	SAT		
3	QAP-3-0, Rev. 3	pgs. 11-12(V)	N	N	SAT	SAT	SAT
	QAP-3-1, Rev. 6	pgs. 18-19(L) pgs. 13-16(V)	N	N	SAT	NI	
			N	N	SAT	SAT	
	QAP-3-2, Rev. 6	pgs. 17-21(V)	N	N	SAT	NI	
	QAP-3-3, Rev. 3	pgs. 22-23(V)	N	N	SAT	SAT	
	QAP-3-4, Rev. 2	pgs. 24 (V)	N	N	SAT	SAT	
	QAP-3-5, Rev. 6	pgs. 14-17(L) pgs. 25-27(V)	N	REC#2	SAT	SAT	
			N	N	SAT	SAT	
	QAP-3-8, Rev. 6	pgs. 20-26(L) pgs. 28-32(V)	N	N	SAT	SAT	
			N	N	SAT	NI	
	QAP-3-9, Rev.6	pgs. 27-30(L) Pgs. 33-35(V)	N	N	SAT	SAT	
N			N	SAT	SAT		
QAP-3-10,Rev.6	pg. 31 (L) pgs. 36-39(V)	N	N	NA	NA		
		N	N	SAT	NI		
QAP-3-12,Rev.7	pgs. 32-33(L) pgs. 40-41(V)	N	REC#3	SAT	SAT		
		N	N	SAT	SAT		
NLP-3-18,Rev.4	pgs.20-26(L)	N	N	SAT	SAT		

Element	Implementing Documents	Details (Checklist)	Deficiencies	Recommendations	Program Adequacy	Procedure Compliance	Overall
	NLP-3-24,Rev.2	pgs. 20-26(L)	N	N	SAT	SAT	
	NLP-3-28,Rev.0	pgs. 20-26(L)	N	N	SAT	SAT	
	NLP-3-26,Rev.0	pgs. 34-36(L)	N	N	SAT	SAT	
	NLP-3-27,Rev.0	pgs. 37-38(L)	N	N	SAT	NI	
	NLP-3-15,Rev.3	pgs. 39-40(L)	N	REC#1, 4	SAT	SAT	
	NLP-3-31,Rev.1	pgs. 41-42(L)	N	N	SAT	SAT	
	VLP-3-1, Rev. 2	pgs. 42-43(V)	N	N	SAT	SAT	
	VLP-3-2, Rev.2	pgs. 44-46(V)	N	N	SAT	SAT	
	VLP-3-3, Rev.0	pg. 47 (V)	N	N	SAT	SAT	
	VLP3-4, Rev.2	pgs. 48-50(V)	N	N	SAT	NI	
4, 7	QAP-7-0, Rev. 0	pg. 54 (L)	CAR YM-97- C-001; CDA#2	N	SAT	UNSAT	UNSAT
		pg. 58 (V)	N	N	SAT	SAT	
	QAP-7-2, Rev. 0	pgs. 55-56 (L)	N	N	SAT	SAT	
		pgs. 59-60(V)	N	N	SAT	NI	
	QAP-7-3, Rev. 0	pgs. 57-60(L)	N	N	SAT	SAT	
		pgs. 61-64(V)	N	N	SAT	NI	
	QAP-7-4, Rev. 0	pgs. 61-63(L)	N	N	SAT	SAT	
pgs. 65-67(V)		N	N	SAT	NI		
QAP-7-5, Rev. 0	pgs. 64-67(L)	N	N	SAT	SAT		
	pgs. 68-71(V)	N	N	SAT	SAT		
QAP-7-6, Rev. 0	pg. 68 (L)	N	N	SAT	SAT		
	pg. 72 (V)	N	N	SAT	SAT		
5	QAP-5-1, Rev. 5	pgs. 43-46 (L)	N	N	SAT	SAT	SAT
		pgs. 51-54(V)	N	N	SAT	SAT	
	NLP-5-1, Rev. 0	pgs. 47-50 (L)	N	N	SAT	SAT	
6	QAP-6-1, Rev. 3	pg. 51 (L)	N	N	SAT	SAT	SAT
		pg. 55 (V)	N	N	SAT	SAT	

Element	Implementing Documents	Details (Checklist)	Deficiencies	Recommendations	Program Adequacy	Procedure Compliance	Overall
	QAP-6-2, Rev. 0	pg. 52 (L) pg. 57 (V)	N N	N N	SAT SAT	SAT SAT	
	NLP-6-3, Rev. 0	pg. 53 (L)	N	N	SAT	SAT	
	VLP-6-1, Rev. 0	pg. 56 (V)	N	N	SAT	SAT	
10	QAP-10-1, Rev. 1	pg. 69 (L)	N	N	NI	NI	NI
12	QAP-12-1, Rev. 3	pgs. 70-74 (L)	N	N	SAT	SAT	SAT
15	YAP-15.1Q, Rev. 2	pgs. 75-79(L)	N	N	SAT	SAT	SAT
16	AP 16.1Q, Rev. 1	pgs. 80-83 (L) pgs. 73-76(V)	DR YM-97-D-026; CDA#3 N	N N	SAT SAT	SAT SAT	SAT
	AP 16.2Q, Rev. 1	pgs. 84-86 (L) pgs. 77-79(V)	N N	N N	SAT SAT	NI NI	
	AP 16.3Q, Rev. 0	pgs. 87-89 (L) pgs. 80-82(V)	N N	N N	SAT SAT	SAT SAT	
	AP 16.4Q, Rev. 0	pgs. 90-91 (L) pgs. 83-84(V)	N N	N N	SAT SAT	NI NI	
17	AP 17.1Q, Rev. 0	pgs. 92-98 (L) pgs. 85-89(V)	N N	N N	SAT SAT	SAT SAT	SAT
	QAP-17-2, Rev. 3	pgs. 99-101 (L)	N	N	SAT	SAT	
		pgs. 90-92(V)	N	N	SAT	SAT	
	QAP-17-6, Rev. 3	pgs. 102-104 (L)	N	REC#6	SAT	SAT	
		pgs. 93-94(V)	N	N	SAT	SAT	
	NLP-17-1, Rev. 2	pgs. 105-106 (L)	N	N	SAT	NI	
NLP-17-5, Rev. 3	pgs. 107-110 (L)	N	REC#5	SAT	SAT		
NLP-17-6, Rev. 0	pgs. 111-112 (L)	N	N	SAT	SAT		

Element	Implementing Documents	Details (Checklist)	Deficiencies	Recommendations	Program Adequacy	Procedure Compliance	Overall
	NLP-17-7,Rev.0	pg. 113 (L)	N	N	SAT	SAT	
SI	QAP-SI-0,Rev.1	pgs. 114-121 (L)	CDA#4	N	SAT	SAT	SAT
		pgs.95-103 (V)	N	N	SAT	SAT	
	QAP-SI-3,Rev.1	pgs. 122-130 (L)	N	N	SAT	SAT	
		pgs. 104-109 (V)	N	N	SAT	SAT	
SII	NWI-SMF-001Q, Rev. 0	pgs. 131-136 (L)	N	N	SAT	SAT	SAT
	NWI-SMF-002Q, Rev. 1	pgs. 137-142 (L)	N	N	SAT	SAT	
	NWI-SMF-003Q, Rev. 0	pgs. 143-144 (L)	N	N	SAT	SAT	
	NWI-SMF-005Q, Rev. 1	pgs. 145-149 (L)	N	N	SAT	SAT	
SIII	NWI-MET-001Q, Rev. 1	pgs. 150-154 (L)	N	N	SAT	SAT	SAT
	NWI-MET-002Q, Rev. 1	pgs. 155-157 (L)	N	N	SAT	SAT	
	NWI-MET-006Q, Rev. 0	pgs. 158-159 (L)	CDA#5	N	SAT	SAT	
	NWI-MET-003Q, Rev. 0	pgs. 160-162 (L)	N	N	SAT	SAT	
	NWI-MET-009Q, Rev. 1	pgs. 163-164 (L)	N	N	SAT	SAT	
	NWI-MET-010Q, Rev. 0	pgs. 165-168 (L)	N	N	SAT	NI	
	NWI-MET-011Q, Rev. 1	pgs. 169-171 (L)	N	N	SAT	SAT	

Element	Implementing Documents	Details (Checklist)	Deficiencies	Recommendations	Program Adequacy	Procedure Compliance	Overall
	YAP-III.1Q, Rev. 1	pgs. 172-173 (L)	N	N	SAT	SAT	
	YAP-III.3Q, Rev. 1	pgs. 174-177 (L)	N	N	SAT	SAT	
SV	QARD, Rev. 5	pgs. 174-177 (L)	N	REC#7	NI	NI	NI
App. C	QARD, Rev. 5; YAP-15.1Q, Rev. 2	pgs. 75-79 (L)	N	N	SAT	NI	NI
TOTAL		177 PGS. (L) 109 PGS. (V)	7	7	SATISFACTORY		

LEGEND:

ADEQUACY.....Requirements in Procedure meet QARD
CAR.....Corrective Action Request
CDA.....Corrected During the Audit
COMPLIANCE.....Procedures Implemented
DR.....Deficiency Report
NA.....Not Audited
(L).....Las Vegas Checklist
N.....None
NI.....Not Implemented
OVERALL.....Summary of Element
REC.....Recommendation
SAT.....Satisfactory
UNSAT.....Unsatisfactory
(V).....Vienna Checklist