

**AUDIT PLAN AND SCHEDULE  
QUALITY ASSURANCE AUDIT  
OF DOE/WEST VALLEY AREA OFFICE  
WEST VALLEY DEMONSTRATION PROJECT**

**AUDIT NUMBER:** 97VP-WV-AU-01

**AUDITING ORGANIZATION:** Department of Energy (DOE) Headquarters  
Office of Technical Services (EM-37)  
Office of Waste Management  
Office of Environmental Management

**AUDITED ORGANIZATION:** West Valley Area Office (WVAO)  
West Valley Nuclear Services (WVNS)

**AUDIT DATES:** January 27-31, 1997

**AUDIT TEAM:**

Jim Conway	(DOE/EM-37)	Audit Team Leader
Bryan Bower	(DOE/WV)	Auditor
Jim Flaherty	(BDM/SAIC)	Auditor/Technical Specialist
Kriss Grisham	(DOE/EM-32)	Auditor
Bob Hartstern	(MACTEC)	Auditor
Dick Lynch	(DOE/SR)	Auditor
Ed Martinez	(DOE/WV)	Auditor
Andrea Mellon	(NYSERDA)	Auditor/Technical Specialist
Norm Moreau	(MACTEC)	Auditor

**OBSERVERS:** Jim George (QATSS) RW Representative

**AUDIT SCOPE:**

The scope of this audit will evaluate all eighteen (18) criteria, and Supplements I and III required by DOE/RW-0333P, Revision 0, "Quality Assurance Requirements and Description"

**ACTIVITIES TO BE AUDITED:**

Quality Assurance program elements and activities related to high-level radioactive waste form production at WVDP. Additionally, a follow-up of identified concerns from the previous EM-37 audits will be conducted to verify accepted corrective action has been implemented and is adequate.

**APPLICABLE REQUIREMENTS/CRITERIA:**

1. ASME NQA-1-1989, "Quality Assurance Requirements for Nuclear Facilities" (including applicable Supplements and Appendices)
2. DOE/RW-0333P, Revision 0, "Quality Assurance Requirements and Description"
3. "High-Level Waste Quality Assurance Requirements For Fiscal Year 1997" (October 10, 1996, memorandum signed by J. T. Conway and R. E. Erickson)
4. WVDP - 212, Revision 1, "WVDP Quality Assurance Program Description"
5. WVDP - 074, Revision 7, "WVNS Quality Assurance Program for WVDP HLW Form Production Through Acceptance"

6. WVDP - 130, Revision 8, "WVNS Quality Assurance Department Work Process Manual"

7. WVAO and WVNS Implementing Procedures as applicable.

**PRELIMINARY AUDIT SCHEDULE:**

<u>Activity</u>	<u>Date</u>	<u>Time</u>
Pre-Audit Meeting/Conduct Audit	01/27/97	9:00 am - 4:00 pm
Conduct Audit	01/28-30/97	8:00 am - 4:00 pm
Post-Audit Conference	01/31/97	9:00 am - 10:00 am

Audit Team caucuses will be held daily at 4:00 pm to discuss daily results and obtain status of the audit progress.

APPROVED: \_\_\_\_\_

*J. T. Conway*  
HLW QAPM/Audit Team Leader

DATE: \_\_\_\_\_

*1/10/97*

## Quality Assurance Audit Checklist

Audit I.D. No: 97VP-WV-AU-01		Audit Area: WEST VALLEY DEMONSTRATION PROJECT		Page 1 of 7	
Organization Evaluated: WVAO & WVNS		Audit Subject: CRITERION 1, ORGANIZATION		Approved By: J. Conway	ATL Date: N/A
Date(s) of Evaluation: January 27-31, 1997		Type of Audit: QA PROGRAM		Approved By: <i>J. Conway</i>	HLW QAPM Date: 1/29/97
Attribute/Item/Description		Reference(s) (Requirement)	Description Of Activities & Items Examined, Objective Evidence Evaluated, and Persons Contacted	Results S=Sat. U=Unsat N/A	Verifier Initials/ Date
No.	Description				
1.1	<p>Verify the detailed description of the WVAO Organization is in place in WVDP-212.</p> <p>Verify the detailed description of the WVNS Organization is in place in WVDP-074.</p> <p>Is there clear and detailed identification of the organizations affected by the HLW QA Requirements?</p>	<p>DOE/RW-0333P, Rev. 0, Para. 1.1</p> <p>WVDP-212, Rev. 1, Section 1</p> <p>WVDP-074, Rev. 7, Section 1</p> <p>WVNS QM 1, Rev. 10</p>			
1.2	<p>Verify affected organizations have controlled documents describing internal and external organization interfaces for its scope of work with:</p> <p style="padding-left: 20px;">Interface Responsibilities Organizational Structures Requirements Established Responsibilities Authorities</p> <p>Are they accepted by the next higher organization?</p> <p><i>Applies to WVAO and WVNS</i></p>	<p>DOE/RW-0333P, Para. 1.2</p> <p>WVDP-212, Section 6</p> <p>WVNS QM 1</p>			

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No.	Description					
1.3	<p>Verify each affected organization has identified the management position responsible for performing QA overview functions.</p> <p>Does the identified individual have appropriate knowledge and experience in management and QA? *Refer this to Criterion 2 auditor for I&amp;T activities.</p> <p><i>Applies to WVPO and WVNS</i></p>	<p>DOE/RW-0333P, Para 1.2.2</p> <p>WVDP - 212, Section 1.1.4</p> <p>WVDP - 074, Section 1.3.4</p> <p>WVNS QM 1</p>				



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No.	Description					
1.4	<p>Verify the identified QA individual's position is as follows:</p> <ul style="list-style-type: none"> <li>A. At the same or higher level as highest line manager.</li> <li>B. Sufficiently independent from cost and schedule.</li> <li>C. Has organizational freedom to effectively communicate with other senior management positions.</li> <li>D. Evident they interpret HLW QA requirements</li> <li>E. No responsibilities unrelated to the QA Program to prevent attention to QA matters.</li> <li>F. Identifies quality problems, recommends solutions &amp; verifies resolution</li> <li>G. Verifies establishment &amp; execution of HLW QA</li> <li>H. Has Stop Work Authority</li> <li>I. Review &amp; Approval for QAP's, revisions &amp; interpretations</li> <li>J. Authority to verify adequacy &amp; implementation, effectiveness of organizations &amp; sub organization QAPs</li> <li>K. Assure work controlled until disposition of nonconformance.</li> </ul> <p><i>Applies to WVAO and WVNS</i></p>	<p>DOE/RW-0333P, Para 1.2.2</p> <p>WVPO - QP-639, Sections 6.1, 6.2, &amp; 6.3</p> <p>WVDP - 074 Section 1</p> <p>WVNS QM 1</p> <p>WVDP - 212 Section 1</p>				

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No.	Description				
1.5	<p>Verify that each affected organization identifies the responsibilities and authorities of those organizations and management positions responsible for achieving and maintaining quality.</p> <p>Verify that QA controls applied to items &amp; activities are determined by the line organizations in combination with the QA organization.</p>	<p>DOE/RW-0333P, Para. 1.2.1</p> <p>WVPO 2.2, Rev. 5, Section 6</p> <p>WVDP - 074, Section 1</p> <p>WVNS QM 1</p>			
1.6	<p>For HLW QA requirements, verify the QA organization:</p> <p>A. Reviews &amp; concurs on detailed technical &amp; QA administrative procedures.</p> <p>B. Performs reviews, surveillances &amp; audits. *Refer this requirement to auditors for criteria 2 &amp; 18</p> <p><i>Applies to WVAO and WVNS</i></p>	<p>WVDP - 212, Section 5</p> <p>WVNS QM 1</p> <p>WVPO - QP - 640, Rev. 10</p>			
1.7	<p>Verify procedures allow for differences of opinion involving HLW QA requirements to be elevated to appropriate management until resolved.</p> <p><i>Applies to WVAO and WVNS</i></p>	<p>DOE/RW-0333P, Para. 1.2.5</p> <p>WVNS QM 1</p> <p>WVDP - 212</p>			

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No.	Description				
1.8	<p>Verify provisions exist for issuing and lifting stop work to include authorization &amp; responsibilities; criteria &amp; methodology; and exact definition of work being stopped.</p> <p><i>Applies to WVAO and WVNS</i></p>	<p>DOE/RW-0333P, Para. 1.2.2.H</p> <p>WVAO - QP - 639, Rev. 9, Section 6.3</p> <p>WVNS QM 1</p>			
1.9	<p>Verify responsibility for the control of further processing, delivery, installation, or operation of nonconforming items are designated in writing.</p> <p><i>WVNS only</i></p>	<p>WVNS QM 15, Rev. 6</p>			

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No.	Description				
1.10	<p>Have other organizations been delegated work which requires meeting the HLW QA requirements? Verify that the organizations delegating the work have retained responsibility and have described the major delegations of work involved in the QAP or any part thereof to any other organization.</p> <p>Verify that if work is delegated to other program participants, that a qualified individual or organization from within the delegating office is designated as accountable for the quality of the delegated work.</p> <p><i>Applies to WVAO and WVNS</i></p>	<p>DOE/RW-0333P, Para. 1.2.4</p> <p>WVNS QM 1</p> <p>WVDP - 074, Section 1</p>			
1.11	<p>Ensures that each organization provides individuals responsible for QA with sufficient authority to assess &amp; identify; initiate, recommend or provide solutions; and verify implementation of solutions for quality problems.</p> <p><i>Applies to WVAO and WVNS</i></p>	<p>WVNS QM 1</p>			
1.12	<p>Are the organizational relationships and responsibilities between WVAO, WVNS, and DOE-OH clearly defined and implemented?</p> <p>Is there objective evidence that each organization is meeting its responsibilities within these defined relationships?</p> <p><i>Applies to WVAO and WVNS</i></p>	<p>WVDP - 074</p> <p>WVDP - 212</p>			

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No.	Description				
1.13	<p>Has programmatic verification of quality been independently performed by the WVPO Site- Wide Programs Team Leader with support from qualified and experienced persons?</p> <p>Has quality achievement been assessed by the WVAO Site- Wide Programs Team Leader or by organizations supporting this position and not directly responsible for performing the work?</p> <p>Has the WVAO Site-Wide Programs Manager assessed that adequate objective evidence of quality is prepared by the WVAO organizations and M&amp;G contractor and maintained as QA records per QP-645?</p> <p>Has WVNS QA monitored the WVNS QA Program through overview activities?</p>	<p>WVDP - 212</p> <p>WVNS QM 1, Section 1.3</p>			

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Organization Evaluated: WVAO & WVNS		Audit Subject: CRITERION 2 - QUALITY ASSURANCE PROGRAM		Approved By: J. Conway ATL		Date: N/A
Date(s) of Evaluation: January 27-31, 1997		Type of Audit: QA PROGRAM		Approved By: <i>J. Conway</i> HLW QAPM		Date: <i>1/24/97</i>
Attribute/Item/Description		Reference(s): (Requirement)	Description Of Activities & Items Examined/ Objective Evidence Evaluated, and Persons Contacted	Results S=Sat. U=Unsat N/A	Verifier Initials/ Date	
No.	Description					
2.1	Verify that the FY 1997 requirements for HLW acceptance activities are being followed  <i>Applies to WVAO and WVNS</i>	FY 1997 requirements for HLW QA Program Implementation				
2.2	Verify that oversight of the DOE contractors performing quality affecting activities is conducted by the organization that monitors the contractor.	FY 1997 requirements for HLW QA Program Implementation				

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No.	Description					
2.3	<p>Verify that policy statement signed by senior line management directs mandatory compliance to the QA program.</p> <p>Verify that an implementing quality program of procedures has been developed and maintained continually since the previous audit.</p> <p><i>Applies to WVAO and WVNS</i></p>	<p>DOE/RW-0333P, Rev. 0 Section 2.2.2</p> <p>WVDP - 212, Rev. 1</p>				
2.4	<p>Verify that WVAO and WVNS have developed HLW QA requirements matrices which identify: 1) Where the HLW QA requirements are addressed, 2) Where exceptions to requirements have been taken, including justification.</p> <p>Verify that the Project Office requirements matrices have been approved by the next higher level organization.</p> <p>Verify that HLW QA requirements matrices are controlled documents and are reviewed and approved.</p> <p>Verify that as changes are made to the procedures, the HLW QA requirements matrices are revised and submitted to the Project Office the next higher level organization for acceptance.</p> <p><i>Applies to WVAO and WVNS</i></p>	<p>DOE/RW-0333P, Section 2.2.2</p> <p>WVDP- 212</p> <p>FY 1997 requirements for HLW QA Program Implementation</p>				

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No.	Description				
2.5	<p>Verify that WVNS has specific QA controls (grading) identified and applied for each item and/or related activity to the degree commensurate with the:</p> <ul style="list-style-type: none"> <li>• Function or end use of the item</li> <li>• Consequences of failure (risk)</li> <li>• Importance of data</li> <li>• Complexity of the item or activity</li> <li>• Reliability of the process</li> <li>• Reproducibility of the results</li> <li>• Uniqueness of the item or degree of standardization</li> <li>• History of the item or service</li> <li>• Necessity for special controls or processes</li> <li>• Significance to the licensing process</li> <li>• Impact on schedule or cost to replace in the event of failure</li> <li>• History of quality</li> <li>• Complexity of function</li> <li>• Degree of functional product demonstration</li> </ul> <p>Verify that the methodology used is described in the Waste Form Compliance Plan.</p> <p><i>Applies to WVNS</i></p>	<p>DOE/RW-0333P, Section 2.2.3</p> <p>QM 2, Rev. 7,</p>			



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2.6	<p>Verify that work is planned to ensure that it is performed under suitably controlled conditions. Verify that planning includes:</p> <ul style="list-style-type: none"> <li>• Definition of the work scope and a listing of the primary tasks involved</li> <li>• Identification of specific scientific and technical information to be collected, analyzed, or used and provisions for recording objective evidence of the work performed</li> <li>• Identification of applicable standards and criteria</li> <li>• Identification and selective application, or development of appropriate implementing documents</li> <li>• Identification of field and laboratory testing equipment, or other equipment</li> <li>• Identification of, or provisions for identification of, required QA records and the recording of objective evidence of the results of the work performed</li> <li>• Identification of technical and QA management controls and verifications</li> <li>• Identification of prerequisites, special controls, environmental conditions, processes or skills</li> <li>• Assignment of responsibilities</li> <li>• Identification of computer software</li> </ul> <p><i>Applies to WVNS</i></p>	<p>DOE/RW-0333P, Section 2.2.4</p> <p>QMs 2 &amp; 3</p>			

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No.	Description					
2.7	<p>Verify that QA surveillances are planned and conducted for waste acceptance activities in progress and documented in a report to appropriate management.</p> <p>Verify performance of surveillances complies with appropriate procedures. Verify the surveillance report includes:</p> <ul style="list-style-type: none"> <li>• Date of surveillance</li> <li>• Description of items or activity under surveillance</li> <li>• Persons conducting the surveillance</li> <li>• Persons contacted during the surveillance</li> <li>• The governing requirements</li> <li>• Identified deficiencies</li> <li>• Measuring and test equipment used</li> <li>• Summary of immediate corrective action taken</li> </ul> <p><i>Applies to WVAO and WVNS</i></p>	<p>DOE/RW-0333P, Section 2.2.5</p> <p>WVAO-QP-640, Rev.10,</p> <p>WVDP - 212 Section 2.3.2</p>				

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No.	Description					
2.8	<p>Verify that senior management of each organization performs or directs the performance of management assessments by personnel above or outside the QA organization. Verify that management assessments are planned and documented at least annually and they evaluate the following:</p> <ul style="list-style-type: none"> <li>• Adequacy of the organizational structure and staff</li> <li>• Adequacy and effectiveness of implementing procedure</li> <li>• Adequacy of the personnel qualification and training program</li> <li>• Effectiveness of the nonconformance and corrective action program</li> <li>• Adequacy of the procedure for management information, tracking, evaluation and reporting system</li> <li>• Adequacy of planning and procedural controls</li> <li>• Conformance to the Waste Acceptance Specifications</li> </ul> <p>Verify compliance to the specific procedures in performing the management assessment.</p> <p><i>Applies to WVAO and WVNS</i></p>	<p>DOE/RW-0333P, Section 2.2.6</p> <p>WVPO-QP-662, Rev. 8,</p> <p>QM 2-4, Rev. 3,</p> <p>WVDP - 212 Section 2.2.1e</p>				

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No.	Description				
2.9	<p>Verify that readiness reviews are identified, planned, performed and documented by management for major scheduled or planned work which is quality affecting and critical or complex in nature. Verify that readiness reviews ensure that objective evidence exists to demonstrate that:</p> <ul style="list-style-type: none"> <li>• Work prerequisites have been met</li> <li>• Personnel have been suitably trained and qualified</li> <li>• Detailed implementing documents and management controls are available and approved.</li> </ul> <p>Verify compliance to specific procedures in performing the readiness reviews.</p> <p><i>Applies to WVAO and WVNS</i></p>	<p>DOE/RW-0333P, Section 2.2.6</p> <p>WVAO-QP-640,</p> <p>WV-121</p> <p>WVDP - 212 Section 2.3.2</p>			
2.10	<p>Verify that programs for peer reviews and technical reviews have been developed and implemented.</p>	<p>DOE/RW-0333P, Rev. 0, Section 2.2.8 - 2.2.9</p> <p>QM3-3, Rev. 3,</p> <p>WV-100</p> <p>WVDP - 212 Section 2.3.3</p>			
2.11	<p>Verify that affected organizations have established and maintained a QA information system to facilitate effective communication of the status of the HLW QA Requirements; status of resolution of QA issues, trends, and significant conditions adverse to quality; and summary of QA overview results.</p> <p>Verify that quarterly, each manager of a QA organization reports QA program information to internal management and to the QA organization of the next- higher-level affected organization.</p>	<p>DOE/RW-0333P, Rev. 0, Section 2.2.10</p>			

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No.	Description					
2.12	<p>Verify that Lead Auditors, Auditors and Technical Specialists are trained and/or qualified in accordance with appropriate procedures</p> <p><i>Applies to WVAO and WVNS</i></p>	DOE/RW-0333P, Rev. 0, Section				
2.13	<p>Verify that personnel are indoctrinated and trained, as needed, to achieve initial proficiency; maintain proficiency; and adapt to changes in technology, methods, or job responsibilities.</p> <p>Verify indoctrination includes the following topics as they relate to a particular function:</p> <ul style="list-style-type: none"> <li>• General criteria, including the HLW QA requirements, applicable codes, regulations and standards</li> <li>• Applicable implementing documents</li> <li>• Job responsibilities and authority</li> </ul> <p>Verify that indoctrinaion and training for a specified task is completed prior to performing the task.</p> <p>Verify compliance to specific procedures for indoctrination and training.</p> <p><i>Applies to WVAO and WVNS</i></p>	<p>DOE/RW-0333P, Rev. 0, Section 2.2.11</p> <p>WVAO-AP-246 Rev. 4, 7/28/93</p> <p>WVAO - QP-640</p> <p>QM 2-1, Rev. 6,</p> <p>QM 2-2/2-3</p>				

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2.14	<p>Verify that each affected organization has evaluated each job position to determine whether the responsibilities of the position include performing work subject to HLW QA requirements and that position descriptions are established for such positions. Verify that minimum education and experience levels for personnel are established and that the requirements are commensurate with the scope, complexity and nature of the work. Verify that selected personnel meet the minimum requirements.</p> <p>Verify that minimum levels of education and experience are verified.</p> <p><i>Applies to WVAO and WVNS</i></p>	<p>DOE/RW-0233P, Rev. 0, Section 2.2.11</p> <p>WVAO-AP-246, Rev. 4</p> <p>QM 2-1, 2-2, 2-3</p>			

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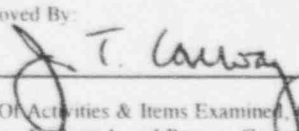
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Organization Evaluated: WVAO & WVNS		Audit Subject: CRITERION 3, DESIGN CONTROL		Approved By: J. Conway ATL		Date: N/A
Date(s) of Evaluation: January 27-31, 1997		Type of Audit: QA PROGRAM		Approved By: <i>J. T. Conway</i> HLW QAPM		Date: 1/24/97
Attribute/Item/Description		Reference(s) (Requirement)	Description Of Activities & Items Examined, Objective Evidence Evaluated, and Persons Contacted	Results S = Sat. U = Unsat N/A	Verifier Initials/ Date	
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3.1	Changes to design are required to be justified and subject to the design control measures commensurate with those applied to the original design.	QM-3				
3.2	Changes are required to be approved by the same affected groups or organizations which reviewed and approved the original design.	QM-3				

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No.	Description					
3.3	Verify that line management shall establish measures for controlling item and technical modifications to the waste form production process.	DOE\RW-0333P Appendix A, Rev. 0 Section A.2.2B				
3.4	<p>Verify that items and technical documents subject to modification control include:</p> <ul style="list-style-type: none"> <li>a. Waste form and canistered waste form.</li> <li>b. Processing and process control plans and impementing documents.</li> <li>c. Waste Form Compliance Plans (WCPs), Waste Form Qualification Reports (WQRs), and Production Records (Prs).</li> </ul>	DOE\RW-0333P Appendix A, Rev. 0 Section A.2.2B				



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Organization Evaluated: WVAO & WVNS		Audit Subject: CRITERION 4, PROCUREMENT DOCUMENT CONTROL		Approved By: J. Conway		ATL Date: N/A
Date(s) of Evaluation: January 27-31, 1997		Type of Audit: QA PROGRAM		Approved By: 		HLW QAPM Date: 1/24/97
Attribute/Item/Description		Reference(s) (Requirement)	Description Of Activities & Items Examined, Objective Evidence Evaluated, and Persons Contacted	Results S = Sat. U = Unsat N/A	Verifier Initials/ Date	
No.	Description					
4.1	Verify that established WVNS procedures delineate the actions to be accomplished in the preparation, review, approval, and control of the procurement documents	QM-4				
4.2	Verify by review that suppliers are surveyed and evaluated to assure that sufficient and appropriate systems, procedures, and personnel are available to meet programmatic and technical requirements of the order, prior to the initiation of work activities impacted by the QA program.	QM-4				

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4.3	<p>Ensure that procurement documents contain:</p> <p>a. A statement of the scope of work to be performed by the supplier.</p> <p>b. Technical requirements such as:</p> <ol style="list-style-type: none"> <li>1. design bases (or reference).</li> <li>2. specific documents (drawings, standards, codes, etc ) that describe the technical requirements of the items or services to be furnished.</li> <li>3. tests, inspections, or acceptance requirements that the purchaser will use to monitor and evaluate the performance of the supplier.</li> </ol>	<p>DOE/RW-0333P Rev. 0 Section 4.2.1.A</p> <p>DOE/RW-0333P Rev. 0 Section 4.2.1.B</p>			

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No.	Description				
4.3 con't	<p>c. Quality Assurance Program Requirements such as:</p> <ol style="list-style-type: none"> <li>1. a requirement for the supplier to have a documented quality assurance program that implements applicable QARD requirements prior to the initiation of work (using a graded approach).</li> <li>2. a requirement for the supplier to incorporate the appropriate QARD requirements into any subtier supplier-issued procurement document.</li> </ol>	<p>DOE/RW-0333P Rev. 0 Section 4.2.1.C</p>			

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No.	Description				
4.4	<p>Ensure that procurement document reviews are performed and documented prior to issuance of the procurement documents to the supplier.</p> <ul style="list-style-type: none"> <li>a. Reviews shall ensure that all applicable technical and quality assurance program requirements are included.</li> <li>b. Reviews shall be performed by personnel (both technical and QA) who have access to pertinent information and who have an adequate understanding of the requirements and scope of the procurement. Procurement documents shall be approved.</li> </ul>	DOE/RW-0333P Rev. 0 Section 4.2.2			
4.5	<p>Verify that procurement quality requirements, including right of access by WVNS and its' customer, as appropriate to all related facilities and documentation, are specified in procurement documents.</p>	QM-4			

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4.6	<p>Changes shall be evaluated before the contract is awarded and shall consider:</p> <ul style="list-style-type: none"> <li>a. additional or modified design criteria.</li> <li>b. analysis of exceptions or changes requested or specified by the supplier and a determination of the impact such changes have on the intent of the procurement documents or quality of the item or service to be furnished.</li> </ul>	DOE/RW-0333P Rev. 0 Section 4.2.3			
4.7	Verify that records are maintained and all suppliers surveyed to show those quality assurance attributes available within their Quality Assurance Programs.	QM-4			

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Organization Evaluated: WVAO & WVNS		Audit Subject: IMPLEMENTING DOCUMENTS		Approved By: ATL		Date:
Date(s) of Evaluation: JUNE 5-9, 1995		Type of Audit: QA PROGRAM		Approved By: <i>J.T. Conway</i> HLW QAPM		Date: 1/24/97
Attribute/Item/Description		Reference(s) (Requirement)	Description Of Activities & Items Examined, Objective Evidence Evaluated, and Persons Contacted	Results S = Sat. U = Unsat N/A	Verifier Initials/ Date	
No.	Description					
5.1	Verify that the WVAO & WVNS programs require that work is being performed to controlled implementing documents.	DOE/RW-0333P Rev. 0, Section 5.2				
5.2	Verify that the WVAO & WVNS programs require that the type of document used to perform work is appropriate to the nature and circumstances of the work being performed.	Section 5.2.1				

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No.	Description					
5.3	<p>Verify that the WVAO &amp; WVNS programs require that implementing documents include the following information as appropriate for the work to be performed and further verify through sampling that these items have been included into implementing documents. (Use attached form)</p> <p>A. Responsibilities of the organization affected by the document.</p> <p>B. Technical and regulatory requirements.</p> <p>C. A sequential description of the work to be performed including controls for altering the sequence of required inspections, tests, and other operations. The organization responsible for preparing the document shall determine the appropriate level of detail.</p> <p>D. Quantitative or qualitative acceptance criteria sufficient for determining that activities were satisfactorily accomplished.</p> <p>E. Prerequisites, limits, precautions, process parameters, and environmental conditions.</p> <p>F. Quality verification points and hold points.</p> <p>G. Methods for demonstrating that the work was performed as required (such as provisions for recording inspection and test results, checklist, or signoff blocks).</p> <p>H. Identification of the lifetime or nonpermanent quality assurance records generated by the implementing document.</p> <p>I. Identification of associated items and activities.</p>	Section 5.2.2, A-I				

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5.4	<p>Verify that WVAO &amp; WVNS have provisions for assuring that implementing documents are reviewed, approved, and controlled .</p> <p>(Evaluate the program for the basic Criterion 6 requirements)</p>	Section 5.2.3			
5.5	<p>Verify that WVAO &amp; WVNS have provisions in place to assure that;</p> <p>A. When work cannot be accomplished as described in the implement documenting, or accomplishment of such work would result in an undesirable situation, the work shall be stopped.</p> <p>B. Work shall not resume until the implementing document is changed to reflect the correct work practices.</p>	Section 5.2.4			



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Organization Evaluated: WVAO & WVNS		Audit Subject: CRITERION 5, DOCUMENT CONTROL		Approved By: J. Conway		ATL Date: N/A
Date(s) of Evaluation: January 27-31, 1997		Type of Audit: QA PROGRAM		Approved By: <i>J. Conway</i>		HLW QAPM Date: 1/24/97
Attribute/Item/Description		Reference(s) (Requirement)	Description Of Activities & Items Examined, Objective Evidence Evaluated, and Persons Contacted	Results S = Sat. U = Unsat N/A	Verifier Initials/ Date	
No.	Description					
6.1	Verify that WVAO & WVNS documents that specify technical requirements, quality requirements, or prescribe work are reviewed for adequacy, approved for release, and are distributed to and used at the location where the work is being performed.	DOE/RW-0333P, Rev. 0 Section 6.2.1				
6.2	Verify that the responsibility for preparing and maintaining documents are assigned to the appropriate WVAO & WVNS organizations.	Section 6.2.2				

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No.	Description					
6.3	<p>Verify that WVAO &amp; WVNS documents that specify technical requirements, quality requirements, or prescribe work are reviewed for adequacy, correctness, and completeness according to the following requirements:</p> <p>A. Review criteria shall be established before performing the review. These criteria shall consider applicability, correctness, technical adequacy, completeness, accuracy, and compliance with established requirements.</p> <p>B. Pertinent background information or data shall be made available to the reviewers by the organization requesting the review if the information is not readily available to the reviewer.</p> <p>C. The review shall be performed by individuals other than the originator.</p> <p>D. Reviewers shall be technically competent in the subject area being reviewed.</p> <p>E. The scope of the review shall consider all aspects of the document:</p> <p style="margin-left: 20px;">1. Each organization or technical discipline affected by the document shall review the document according to the established review criteria. Changes to the document shall be reviewed by those organizations or technical disciplines affected by the change</p> <p style="margin-left: 20px;">2. The quality assurance organization shall review quality assurance implementing documents that translate QARD requirements into work processes as described in the subsection entitled Quality Assurance Program Documents.</p> <p>The quality assurance organization shall also review changes to documents if they reviewed the previous version, regardless of whether the quality assurance organization is affected by the change</p> <p>F. Mandatory comments resulting from the review shall be documented and resolved before approving the document.</p>	Section 6.2.3 & Section 2.2.9				

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No.	Description				
6.4	The organizational position responsible for approving the document for release has been identified for WVAO & WVNS.	Section 6.2.4			
6.5	<p>The distribution and use of documents, including changes and editorial corrections to documents, shall be controlled:</p> <p>A. Documents used to perform work shall be distributed to, and used at, the work location.</p> <p>B. Effective dates shall be established for approved implementing documents.</p> <p>C. The disposition of obsolete or superseded documents shall be controlled.</p> <p>D. Lists shall be established to identify the current status of each document that is required to be controlled in accordance with this section.</p>	Section 6.2.5			

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6.6	<p>Verify WVAO &amp; WVNS changes to documents are reviewed for adequacy, correctness, and completeness, according to the requirements of Section 2.0, prior to approval and issuance.</p> <p><b>A.</b> Changes shall be reviewed by the organizations or disciplines affected by the change.</p> <p><b>B.</b> The quality assurance organization shall review changes if the quality assurance organization was involved in the review of the previous version</p> <p><b>C</b> Changes shall be approved for release by the designated organizational position that is responsible for the document.</p> <p><b>D</b> Implementing documents shall define the method used to incorporate changes.</p> <p><b>D</b> If the defined method is other than reissue of the entire controlled document, the implementing document shall define the maximum number of changes permitted prior to requiring reissue of the entire controlled document</p> <p><b>E</b> Implementing documents shall require that a history of changes to Quality Assurance Program documents, including the reasons for the changes, be documented and maintained. This document history shall be reviewed each time additional changes to the document are proposed</p>	Section 6.2.6			

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No.	Description				
6.7	<p>Verify for WVAO &amp; WVNS if an activity cannot be performed as listed in the implementing document, and the change process would cause unreasonable delays, then an expedited change may be made at the work location by responsible management.</p> <p>A. After the expedited change has been authorized, the changes shall be processed through the normal change process. This processing shall occur in a timely manner consistent with the type and nature of the document being changed.</p> <p>B. Implementing documents shall describe the process to control expedited changes according to the following requirements.</p> <p>1. The level of management with the authority to make expedited changes shall be identified.</p> <p>2. The time limits for processing expedited changes through the normal change process shall be specified.</p> <p>3. An evaluation of the work shall be performed if the normal review process results in a change that is different from the expedited change.</p>	Section 6.2.7			

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No.	Description				
6.8	<p>Verify for WVAO &amp; WVNS that editorial corrections may be made to documents without being subject to review requirements.</p> <p>A. The following items are considered editorial corrections:</p> <ol style="list-style-type: none"> <li>1. Correcting grammar or spelling.</li> <li>2. Renumbering sections or attachments.</li> <li>3. Changing the title or number of the document.</li> <li>4. Updating organizational titles.</li> </ol> <p>Note: A change in an organizational title accompanied by a change in responsibilities is not considered an editorial correction.</p> <p>B. The organizational position responsible for the document shall approve editorial corrections.</p>	Section 6.2.8			

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Organization Evaluated: WVAO & WVNS		Audit Subject: CRITERION 7, CONTROL OF PURCHASED ITEMS AND SERVICES		Approved By: J. Conway ATL		Date: N/A
Date(s) of Evaluation: Januray 27-31, 1997		Type of Audit: QA PROGRAM		Approved By: <i>J. Conway</i> HLW QAPM		Date: 1/24/97
Attribute/Item/Description		Reference(s) (Requirement)	Description Of Activities & Items Examined, Objective Evidence Evaluated, and Persons Contacted	Results S = Sat. U = Unsat N/A	Verifier Initials/ Date	
No.	Description					
7.1	Procurements shall be planned and documented to ensure a systematic approach to the procurement process.	DOE/RW-0333P Rev. 0 Section 7.2.1				
7.2	Verify that surveillances of suppliers facilities are planned and conducted during the life of the contract by WVNS Quality Assurance or a representative of the WVNS Quality Assurance Department based on the items' importance to safety and the suppliers quality history.	QM-7				
7.3	Verify that procurement documents and changes define requirements for specific WVNS inspection hold points beyond which a supplier may not proceed until released, in writing, by WVNS Quality Assurance.	QM-7				

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7.4	Supplier generated documents shall be controlled, processed, and accepted in accordance with the requirements established in the procurement documents.	DOE/RW-0333P Rev. 0 Section 7.2.5-A				
7.5	Verify that supplier quality assurance documents including, when required, a copy of the supplier's final Certificate of Conformance are reviewed by qualified personnel and a copy is maintained in the WVNS Quality Assurance inspection working files.	QM-7				
7.5	Verify that Commercial grade items are identified in the purchase order by the manufacturer's published product description, such as catalog number.	QM-7				

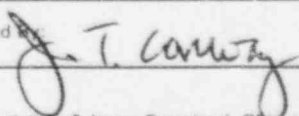


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7.7	Receiving inspection shall be performed in accordance with established inspection implementing documents and shall consider the results of any source verifications and audits and the demonstrated quality performance of the supplier	DOE/RW-0333P Rev. 0 Section 7.2.9.A & B				
7.8	Verify as a minimum, receipt inspection records shall identify: <ul style="list-style-type: none"> <li>a. Characteristics inspected and objective evidence of results.</li> <li>b. Receipt inspection acceptance criteria, including source of requirements.</li> <li>c. M&amp;TE used for inspection.</li> </ul>	QM-7				
7.9	The purchaser and supplier shall establish and document the process for disposition of items that do not meet procurement document requirements.	DOE/RW-0333P Rev. 0 Section 7.2.11				

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Date(s) Of Evaluation: January 27-31, 1997		Type of Audit: QA PROGRAM		Approved By:  HLW QAPM		Date: 1/24/97
Attribute/Item/Description		Reference(s) (Requirement)	Description Of Activities & Items Examined, Objective Evidence Evaluated, and Persons Contacted	Results S = Sat. U = Unsat. N/A	Verifier Initials/ Date	
No.	Description					
8.1	Verify that WVNS has established, where appropriate, procedures for the identification and control of archival samples, materials, parts and components for waste acceptance process activities, including in-house control of canisters and other items associated with or used in the production of the final canistered waste form.	QM-8				
8.2	Verify that procedures provide detailed instructions for the preparation of equipment and material specifications, including the designation of quality level and the resulting review and approval cycle.	QM-8				

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No.	Description					
8.3	<p>Verify that QA reviews the specification for incorporation of applicable quality requirements. This review includes:</p> <ul style="list-style-type: none"> <li>• material identification</li> <li>• material and equipment test reports</li> <li>• shelf life</li> <li>• manufacturing and inspection requirements</li> <li>• special shipping and handling requirements</li> </ul>	QM-8				
8.4	<p>Verify that procedures are established to assure that identification is maintained and traceable to appropriate documents.</p> <ul style="list-style-type: none"> <li>• That verification of correct identification is required before release for use or analysis.</li> <li>• That controls are established to preclude inadvertent use of defective items.</li> </ul>	QM-8				

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No.	Description					
8.5	Verify that QA reviews the procurement package for incorporation of proper quality requirements. ( see WVDP-074, para. 8.3	QM-8				
8.6	Verify that upon receipt at WVDP, QA verifies the identification of items and its documentation.	QM-8				
8.7	Verify that shelf life of an item is identified	QM-8				

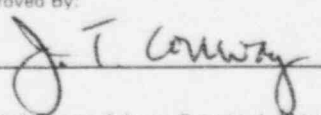
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8.8	<p>A. Identification shall be maintained on the items or in a manner which ensures that identification is established and maintained.</p> <p>B. Items shall be identified from the time of initial fabrication or receipt, up to and including installation or end use.</p>	DOE/RW-0333P Section 8.2.1				
8.9	<p>A. Item identification methods shall include use of physical markings. If physical markings are either impractical or insufficient, other appropriate means shall be employed ( such as physical separation, labels or tags attached to containers, or procedural control).</p> <p>B. Physical markings, when used, shall:</p> <ol style="list-style-type: none"> <li>1. Be applied using materials and methods that provide a clear and legible identification.</li> <li>2. Not detrimentally affect the function or service life of the item</li> <li>3. Be transferred to each part of an identified item when the item is subdivided.</li> <li>4. Not be obliterated or hidden by surface treatments or coatings, or after installation unless other means of identification are substituted.</li> </ol>	DOE/RW-0333P				
8.10	<p>A. Item identification methods shall ensure that traceability is established and maintained in a manner that allows an item to be traced to applicable design or other specifying documents.</p> <p>B. Item traceability documentation shall ensure that the item can be traced at all times from its source through installation or end use.</p> <p>Verify these requirements in conjunction with checkpoint 8.1.1, based on selected sample(s) of items.</p>	DOE/RW-0333P Section 8.2.3				

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Date(s) Of Evaluation: January 27-31, 1997		Type of Audit: QA PROGRAM		Approved By:  HLW QAPM		Date: 1/24/97
Attribute/Item/Description		Reference(s) (Requirement)	Description Of Activities & Items Examined, Objective Evidence Evaluated, and Persons Contacted	Results S = Sat. U = Unsat. N/A	Verifier Initials/ Date	
No.	Description					
9.1	Verify that a list of the special processes that an organization will perform, or be responsible for performing, is established and maintained. ( Include processing as well as NDE.)	DOE/RW-0333P Rev. 0. Para. 9.2.1, C				
9.2	Verify that special process implementing documents include or reference: a. Qualification requirements for personnel, implementing documents, and equipment. b. Conditions necessary for accomplishment of the special process. c. Requirements of applicable codes and standards, including acceptance criteria for the special process.	Para. 9.2.2				
9.3	Verify that personnel performing nondestructive examinations are qualified in accordance with the American Society for Nondestructive Testing Recommended Practice No. SNT-TC-1A, June 1980 Edition.  Verify that the affected organization is established implementing documents for the control and administration for the training, examination, and certification of nondestructive examination personnel	Para. 9.2.3, B - C				

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9.4	<p>Verify that special processes are being performed by qualified personnel using qualified procedures in accordance with specified requirements.</p> <p>a) What system is used to track the qualification status of personnel both in house and at supplier facilities.</p> <p>b) How are process and equipment qualifications activities documented.</p>	<p>QM-9, Rev. 8</p> <p>WVDP-074, REV. 7 Criteria 9</p>			
9.5	<p>Verify that QA personnel review and approve special process procedures and Purchase Orders for special processes.</p>	QM-9, Rev. 8			

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Date(s) Of Evaluation: January 27-31, 1997		Type of Audit: QA PROGRAM		Approved By: <i>J. T. Conway</i> HLW QAPM		Date: 1/24/97
Attribute/Item/Description		Reference(s) (Requirement)	Description of Activities & Items Examined, Objective Evidence Evaluated, and Persons Contacted	Results S = Sat U = Unsat N/A	Verifier Initials/ Date	
No.	Description					
10.1	<b>Inspection Planning</b>  Inspection planning shall be performed and documented, and include a sample of the RW/0333P elements referenced below.	DOE/RW/0333P, Rev.0				
	A. Identification of the characteristics to be inspected.	Para. 10.2.1.B				
	B. Identification of inspection methods to be used.	Para. 10.2.1.C				
	C. Identification of acceptance criteria.	Para. 10.2.1.F				
	D. Methods to record inspection results.	Para. 10.2.1.H				
	E. Selection and identification of the measuring and test equipment to be used to perform the inspection to ensure that the equipment is calibrated and is of the proper type, range, accuracy, and tolerance to accomplish the intended function.	Para. 10.2.1.I				
10.2	<b>Final Inspection</b>  A. Finished items shall be inspected for completeness, markings, calibration, adjustments, protection from damage, or other characteristics as required to verify the quality and conformance of the item to specified requirements.	Para. 10.2.6.A				



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No.	Description				
10.3	Final Inspection (cont.) B. Documentation not previously examined shall be examined for adequacy and completeness.	Para. 10.2.6.B			
10.4	Final inspections shall include a review of the results and resolution of nonconformances identified by earlier inspections.	Para. 10.2.6.C			
10.5	The acceptance of an item shall be documented and approved by qualified and authorized personnel.	Para. 10.2.7.A			
10.6	Inspection Documentation shall identify: A. The item inspected B. Date of inspection C. The name of the inspector, or the inspectors unique identifier, who documented, evaluated and determined acceptability. D. The type of observation or method of inspection. E. The inspection criteria, sampling plan, or reference documents (including revision levels) used to determine acceptance. F. Results indicating acceptability of characteristics inspected. G. Measuring and test equipment used during the inspection including the identification number and the most recent calibration date. H. Reference to information on actions taken in connection with nonconformances, as applicable.	Para. 10.2.8			

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No.	Description				
10.7	<p>Qualifications of Inspection and Test Personnel</p> <p>Qualifications</p> <p>A. Personnel performing inspections as described in this section and personnel performing tests as described in Section 11.0 shall be qualified according to the indoctrination and training, education and experience, and physical requirements of this Section.</p> <p>These personnel shall have experience or training commensurate with the scope, complexity, or special nature of the inspections or tests.</p> <p>B. Determination of Initial Capabilities The capabilities of a candidate for certification shall be initially determined by an evaluation of the candidate's education, experience, and training; and either examination results or capability demonstration.</p> <p>The evaluation shall be performed to the requirements of the applicable functional level, and education and experience requirements of this Section.</p> <p>C. Indoctrination and Training of Inspection and Test Personnel</p> <p>1. Inspection and test personnel shall be indoctrinated to the technical objectives and requirements of the applicable codes and standards and the quality assurance program requirements that are to be employed in executing their responsibilities.</p> <p>2. The need for formal training shall be determined, and training shall be conducted as required to qualify personnel for performing inspections and tests.</p>	Para. 10.2.9 A-G			

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No.	Description				
D.	<p>Functional Qualification Levels of Inspection and Test Personnel</p> <p>Three levels of functional qualification shall be used depending on the complexity of the functions involved. The criteria for each level are not limiting with regard to organizational position or professional status but, rather, are limiting with regard to functional work.</p>				
E.	<p>Certifying the Qualifications of Inspection and Test Personnel</p> <p>The qualifications of inspection and test personnel shall be certified in writing by the responsible organization.</p> <p>The certification shall document the:</p> <ol style="list-style-type: none"> <li>1. Name of the certifying organization.</li> <li>2. Identification of the person being certified.</li> <li>3. Qualified inspection and test categories or class the individual is certified to perform.</li> <li>4. Basis for certification (such as education, experience, indoctrination, training, examination results, and results of capability demonstration).</li> <li>5. Results of periodic evaluations.</li> <li>6. Results of visual acuity and physical examination when required.</li> <li>7. Date of certification and date of certification expiration.</li> <li>8. Signature of the organization's designated representative responsible for certification.</li> </ol>				

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No.	Description				
10.8	<p>F. Periodic Evaluation of Qualification for Inspection and Test Personnel</p> <p>1. The job performance of inspection and test personnel shall be reevaluated at periodic intervals not to exceed three years to ensure qualifications have been maintained.</p> <p>a) Reevaluation shall be by evidence of continued satisfactory performance or redetermination of required capability in accordance with the qualification requirements specified for the job as described in this section</p>	QM-10, Rev. 7			
	<p>G. Maintaining Qualification Documentation for Inspection and Test Personnel.</p> <p>1. Documentation of personnel qualification shall be established, kept current, and maintained by the responsible organization.</p> <p>This documentation shall contain the information required for the initial qualification and the maintenance of qualification.</p>				
	Verify that the Quality Program meets the QM-10 requirements set forth below.				
	<p>1. A list of certified inspectors exists, and is kept up to date.</p> <p>2. Inspection records are properly recorded.</p> <p>a. Receiving Inspection</p> <p>b. Production/Qualification Inspection</p>				

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No.	Description				
10.9	Verify that mandatory hold points (if utilized) are used to control work and that work shall not proceed without the specific consent of the organization placing the hold point, and that the specific hold points shall be indicated by implementing procedure. Consent to waive hold points shall be documented before continuing work beyond the designated hold point.	DOE/RW-0333P Para 10.2.3			
10.10	Verify that modifications, repairs, or replacements of items performed subsequent to final inspection shall require reinspection or retest, as appropriate, to verify acceptability.	DOE/RW-0333P Para 10.2.6D			
10.11	Verify that the statistical sampling methods used are based on recognized standard practices, when used to verify the acceptability of a group of items.	DOE/RW-0333P Para 10.2.4			

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Date(s) of Evaluation: January 27-31, 1997		Type of Audit: QA PROGRAM		Approved By: <i>J. T. Conway</i>		HLW QAPM
						Date: 1/24/97
Attribute/Item/Description		Reference(s) (Requirement)	Description Of Activities & Items Examined, Objective Evidence Evaluated, and Persons Contacted	Results S = Sat. U = Unsat N/A	Verifier Initials/ Date	
No.	Description					
11.1	Verify that each participant assigned responsibilities for performing, manufacturing, and assembly activities or operational activities in support of waste acceptance activities is required to establish, as applicable, proof tests, pre-operational tests, and product certification tests. Precision and accuracy considerations shall be identified in test procedures.	WVDP-212, Rev. 1 Para. 11.2				
11.2	Verify that test results are documented and evaluated to assure that test requirements have been satisfied on 1/21/97.  The test status of an item shall be identified in accordance with Section 14.0	DOE/RW-0333P, Rev. 0, Para 11.2.4 A-B				
11.3	Verify that test documentation includes: item or work product tested, date of test, name of tester and data recorders, type of observation and method of testing, identification of test criteria or reference documents used to determine acceptance, results of acceptability of the test, actions taken in connection with any nonconformances, person evaluating test results, and identification of M&TE used and calibration date.	DOE/RW-0333P Para 11.2.5 A-I				

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No.	Description				
11.4	Verify test requirements for sampling include appropriate provisions for collection and maintenance of archival samples.	WVDP-074, 11.0 Test Control			
11.5	Verify that DOE-WV provides over-sight test control practices related to waste acceptance activities.	DOE Implementation on 1/21/97 11.0 Test Control			
11.6	Verify that personnel performing testing are qualified according to the requirements of Section 10.9	DOE/RW-0333P Para 11.2.6			



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Organization Evaluated: WVAO & WVNS		Audit Subject: CRITERION 12-CONTROL OF MEASURING AND TEST EQUIPMENT		Approved By: J. Conway ATL Date: N/A	
Date(s) Of Evaluation: January 27-31, 1997		Type of Audit: QA PROGRAM		Approved By: <i>J. T. Conway</i> HLW QAPM Date: 1/24/97	
Attribute/Item/Description		Reference(s) (Requirement)	Description Of Activities & Items Examined, Objective Evidence Evaluated, and Persons Contacted	Results S = Sat. U = Unsat. N/A	Verifier Initials/ Date
No.	Description				
12.1	Verify that WVNS has established provisions to ensure that M&TE is properly controlled, calibrated, and maintained.	DOE/RW-0333P Rev. 0, Para. 12.1			
12.2	<p>Verify that WVNS has calibration controls in place and are being implemented that assure the following:</p> <p>A. M&amp;TE shall be calibrated, adjusted, and maintained at prescribed intervals or, prior to use, against reference calibration standards having traceability to nationally recognized standards. If no recognized standards or physical constants exist, the basis for calibration shall be documented.</p> <p>B. Calibration standards shall have a greater accuracy than the required accuracy of the M&amp;TE being calibrated.</p> <p>1. If calibration standards with a greater accuracy than required of the M&amp;TE being calibrated do not exist or are unavailable, calibration standards with accuracy equal to the required calibration accuracy may be used if they can be shown to be adequate for the requirements.</p> <p>2. The basis for the calibration acceptance shall be documented and authorized by responsible management. The level of management authorized to perform this function shall be identified.</p>	<p>Para. 12.2.1 A-F</p> <p>QM-12 Rev. 8</p>			



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No.	Description					
12.2 (Con't)	<p>C. The method and interval of calibration for each device shall be defined, based on the type of equipment, stability characteristics, required accuracy, intended use, and other conditions affecting measurement control. For M&amp;TE used in one-time-only applications, the calibration shall be done before and after use.</p> <p>D. A calibration shall be performed when the accuracy of calibrated M&amp;TE is suspect.</p> <p>E. Calibrated M&amp;TE shall be labeled, tagged, or otherwise suitably marked or documented to indicate due date or interval of the next calibration.</p> <p>F. Calibrated M&amp;TE shall be uniquely identified to provide traceability to its calibration data.</p>					
12.3	<p>Verify that the use of M&amp;TE is documented. As appropriate to the equipment use and its calibration schedule, the documentation shall identify the processes monitored, data collected, or items inspected or tested since the last calibration.</p>	<p>DOE/RW-0333P Para. 12.2.2</p>				
12.4	<p>Verify that out of calibration (OOC) M&amp;TE is not used until calibrated and is controlled as follows:</p> <p>OOC M&amp;TE shall be tagged, segregated, or otherwise controlled to prevent use until recalibrated.</p> <p>When M&amp;TE is found OOC during recalibration, the validity of results obtained using that equipment since its last valid calibration shall be evaluated.</p> <p>The evaluation shall be documented and include the determination of acceptability for previously collected data, process monitored, or items previously inspected or tested.</p>	<p>Para. 12.2.3 B-C</p>				

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No.	Description					
12.5	Verify that any M&TE that is consistently found to be OOC during the recalibration process, is repaired or replaced.					
12.6	Verify that M&TE is properly handled and stored to maintain accuracy.	Para. 12.2.4				
12.7	<p>Verify that M&amp;TE calibration documentation includes the following information;</p> <ul style="list-style-type: none"> <li>- Identification of the measuring or test equipment calibrated.</li> <li>- Traceability to the calibration standard used for calibration.</li> <li>- Calibration data</li> <li>- Identification of the individual performing the calibration.</li> <li>- Identification of the date of calibration and the recalibration due date or interval, as appropriate.</li> <li>- Results of the calibration and statement of acceptability.</li> <li>- Reference to any actions taken in connection with OOC or nonconforming M&amp;TE including evaluation results, as appropriate.</li> <li>- Identification of the implementing document (including revision level) used in performing the calibration.</li> </ul>	Para. 12.2.6 A-H				

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No.	Description					
12.8	Calibration environments are controlled with consideration given to: <ul style="list-style-type: none"> <li>- Temperature</li> <li>- Humidity</li> <li>- Vibration</li> <li>- Cleanliness</li> <li>- Other Controllable Factors</li> </ul>	QM 12, Rev.8, Para.6.1.3				
12.9	Verify that a calibration recall system has been established	Para. 6.1.4				
12.10	Verify that periodic audits or surveillances are conducted to evaluate the adequacy of the calibration system.	Para. 6.1.7				
12.11	Verify that measurement standards used for calibrating M&TE, is traceable to NIST and measurement standards are supported by certificates, reports, or data sheets attesting to the description of the item, the calibration source, the date of calibration, the calibration assigned value, a statement of uncertainty, and a description of the environmental or other conditions under which the calibration results were obtained.	Para 6.1.8				

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No.	Description					
12.13	<p>Verify that records of calibration are maintained and:</p> <ul style="list-style-type: none"> <li>- Include the individual calibration record,</li> <li>- Description or identification of the item,</li> <li>- Calibration intervals,</li> <li>- Date calibrated,</li> <li>- I D of calibrator,</li> <li>- Procedure used,</li> <li>- Results,</li> <li>- Calibration action taken.</li> </ul>	Para. 6.1.9				
12.14	<p>Verify that calibration status is indicated by labels identifying the date calibrated, calibration due date, and any limitations of use if applicable.</p> <p>Verify that tamper-resistant seals are affixed to readily accessible operator controls which, if moved, could affect the calibration.</p> <p>Verify that in areas of permanent M&amp;TE (control rooms) a notice that "Adjustments which could alter the calibration status of such equipment shall not be permitted" shall be prominently posted.</p>	Para 6.1.10				
12.15	<p>Verify that if calibration services are contracted to other than NIST, the supplier is required to have a calibration system which conforms to MIL-STD-45662A.</p> <p>When exceptions are taken to MIL-STD-45662A are required, they are documented in the procurement documentation and are reviewed and concurred with by the cognizant technical person and the following requirements are complied with:</p> <ul style="list-style-type: none"> <li>- Documentation that shows traceability to NIST,</li> <li>- Instruments shall be labeled,</li> <li>- Procedures are available</li> <li>- Standards have the required accuracy, stability, range, and resolution required for the intended use,</li> <li>- Records of calibration maintained by WVNS.</li> <li>- Instruments found to be OOC (off sit "as found" data is provided to, evaluated and the impact documented by WVNS.</li> <li>- Recommended standards different than the MIL-STD will require the documentation to include a copy of the document requiring the different standard.</li> </ul>	Para. 6.1.11				

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No.	Description					
12.16	The handling, storage, and transporting of M&TE and standards is performed in a manner which shall not adversely affect the calibration or condition of the equipment.	Para. 6.1.12				
12.17	Verify that nonconformances are issued when non-calibrated M&TE is used for quality related activities.	Para. 6.4				
12.18	Verify that M&TE which is inherently stable is certified by the supplier as to its initial accuracy. (Rulers, Tapes, Levels, Sealed units with no adjustment)	Para. 6.6				

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Date(s) Of Evaluation: January 27-31, 1997		Type of Audit: QA PROGRAM		Approved By: <i>J. T. Conway</i> HLW QAPM		Date: 1/29/97
Attribute/Item/Description		Reference(s) (Requirement)	Description Of Activities & Items Examined, Objective Evidence Evaluated, and Persons Contacted	Results S = Sat. U = Unsat. N/A	Verifier Initials/ Date	
No.	Description					
13. 1	Verify that DOE-WV monitors major Project participant handling, storage, and shipping practices related to waste acceptance activities, and by surveillance or audit, periodically reviews participant practices to assure implementing and adequacy.	WVDP - 212, Rev. 1 Section 13.1				
13.2	Verify that handling, storage, cleaning, packaging, shipping and preservation of items is conducted in accordance with established work and inspection implementing documents, shipping instructions or other specified documents.	DOE/RW/0333P Rev.0, Section 13.2.1.A & B				
13. 3	Verify as required that for particular items, special equipment (such as containers, shock absorbers, and accelerometers) and special protective environments ( such as inert gas and specific moisture and temperature levels ) are specified and provided.  Verify that if special equipment and environments are used, that provisions are made for their verification and verify that these items are specified, provided, and that their existence is verified at specific intervals through inspection and tests.	DOE/RW/0333P Section 13.2.2.A & B				

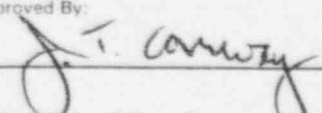
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No.	Description					
13.4	Operators of special handling and lifting equipment shall be experienced or trained to use the equipment.  Verify that the requirements are identified for training operators for special handling and lifting equipment.	DOE/RW/0333P Section 13.2.2.E				
13.5	Verify that special handling tools and equipment are used and controlled as necessary to ensure safe and adequate handling.	DOE/RW/0333P Section 13.2.2.C				
13.6	Verify that special handling tools and equipment are used, controlled, inspected and tested at specified time intervals and in accordance with implementing documents to verify that tools and equipment are adequately maintained.	DOE/RW/0333P Section 13.2.2.C & D				
13.7	Verify that measures are established for marking and labeling for the packaging, shipping, handling and storage of items as necessary to adequately identify, maintain and preserve the item.  Verify that markings and labels indicate the presence of special environments or the need for special controls if necessary.	DOE/RW/0333P Section 13.2.3.A & B				

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Date(s) Of Evaluation: January 27-31, 1997		Type of Audit: QA PROGRAM		Approved By:  HLW QAPM Date: 1/24/97	
Attribute/Item/Description		Reference(s) (Requirement)	Description Of Activities & Items Examined, Objective Evidence Evaluated, and Persons Contacted	Results S = Sat. U = Unsat. N/A	Verifier Initials/ Date
No.	Description				
14.1	Verify that WVNS have established a program for identifying the inspection, test, and operating status of items. The program shall address how altering sequences of operations are controlled.	DOE/RW-0333P Rev. 0, Para. 14.1			
14.2	Verify that items that have satisfactorily passed required inspections and tests are identified and the identification methods preclude the inadvertent installation, use, or operation of items that have not passed the required inspections and tests.	Para. 14.2.1 A-B			
14.3	<p>Verify the following indicating status is met:</p> <ul style="list-style-type: none"> <li>The status of required inspection and tests of items are indicated when necessary to preclude inadvertent by-passing of such inspections and tests.</li> <li>The status of inspections and tests shall be identified either on the items or in documents traceable to the items.</li> <li>Status is maintained through the use of status indicators (such as tags, markings, labels and stamps), or other means (such as travelers, inspection or test records).</li> <li>The authority for applying and removing status indicators shall be specified.</li> <li>Status indicators are used to provide an indication of the test or operating status of <u>items or facilities</u> to prevent inadvertent changes in operating status.</li> </ul>	Para 14.2.2 A-E			



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No.	Description				
14.4	<p>Verify that procedures are in place for status control and that the procedures include the following:</p> <p>A. The status of inspected items and the operating status of facilities are visible and controlled,</p> <p>B. Quality status indicators shall be removed only by, or with the approval of, the organization that applied them,</p> <p>C. Inspection and test status of individual quality related items are identified by tags, stamps, labels, etc.,</p> <p>D. The operational status of structure, systems, components, are indicated by utilizing tagged valves, tagged switches, lockouts, etc., in conjunction with log book entries that document status to prevent unauthorized adjustment or operation,</p> <p>E. The operating or process status of quality related systems is controlled,</p> <p>F. Altering required tests, inspections, and other operations are controlled by review and approval by the organization that performed the original test, inspection, or operation procedure review and approval,</p>	WVNS OM-14, Rev. 4 Para 2.1			
14.5	<p>Verify that the program requires that QA :</p> <ul style="list-style-type: none"> <li>- Review and approve the "Inspection, Test and Operating Status" procedure(s),</li> <li>- Perform audits and surveillances for procedural compliance</li> <li>- Verify that subcontractors, authorized to fabricate, install, and/or test items, have an adequate inspection test-status system.</li> </ul>	Para. 2.2			

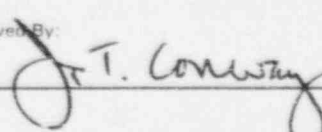
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No.	Description					
14.6	Verify that the status of inspection and test activity requirements are incorporated into procurement/contract documents.	Para. 2.3				
14.7	Verify that DOE monitors major participant practices related to waste acceptance activities, such as: inspection, testing, operating status, through surveillance, audit, periodic reviews, and walkdowns to assure implementation and compliance.	WVDP - 212, Rev. 1 Para 14.1				

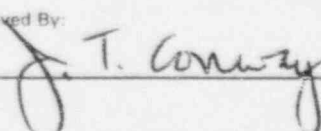
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Date(s) Of Evaluation: January 27-31, 1997		Type of Audit: QA PROGRAM		Approved By:  HLW QAPM	
Attribute/Item/Description		Reference(s) (Requirement)	Description of Activities & Items Examined, Objective Evidence Evaluated, and Persons Contacted		Results S = Sat. U = Unsat. N/A
No.	Description				Verifier Initials/ Date
15.1	<p>Verify that WVNS has developed a procedure for identifying, segregating, documenting, evaluating, dispositioning, and trending nonconforming items (NCs) that meets the requirement of DOE/RW-0333P, Section 15.2.1 through 15.2.4.</p> <p>Note: Use the WVNS QARD Matrix as a guide.</p>	DOE/RW-0333P, Rev. 0 Para. 2.2.2.B			

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Organization Evaluated: WVAO & WVNS		Audit Subject: CRITERION 16-CORRECTIVE ACTION		Approved By: J. Conway ATL		Date: N/A
Date(s) Of Evaluation: January 27-31, 1997		Type of Audit: QA PROGRAM		Approved By:  HLW QAPM		Date: 1/24/97
Attribute/Item/Description		Reference(s) (Requirement)	Description Of Activities & Items Examined, Objective Evidence Evaluated, and Persons Contacted	Results S = Sat. U = Unsat. N/A	Verifier Initials/ Date	
No.	Description					
16.1	<p>Verify that WVAO &amp; WVNS have developed a procedure for identifying, classifying, documenting, reporting, trending, and conducting follow-up on Conditions Adverse to Quality (CAQ) that meets the requirement of DOE/RW-6333P, Section 16.2.1 through 16.2.6.</p> <p>Note: Use the appropriate QARD Matrix as a guide.</p>	DOE/RW-0333P Rev. 0 Para. 2.2.2.B				
16.2	<p>Verify that Request for Immediate Corrective Action (RICA) are prepared when conditions warrant immediate corrective action.</p> <p>Note: How are CAQs not requiring immediate corrective action documented?</p>	QP-640, Rev. 10 Para. 6.4				
16.3	<p>Verify that RICAs are initiated, processed, and disposition as required.</p> <p>Note: How are CAQs not specific to WVNS documents? The scope of QP-640 is not limited to WVNS.</p>	QP-640, Para. 6.4.1-6.4.9				

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Audit I.D. No. 97VP-WV-AU-01		Audit Area: WEST VALLEY DEMONSTRATION PROJECT			Page 2 of 3	
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No.	Description					
16.4	Verify that CAQs identified by WVAO are documented in accordance with OP-640 and SCAQs are processed in accordance with OP 639.	QP-645, Rev. 8 Para. 6.3.1				
16.5	Verify that CAQs and SCAQs are tracked and monitored to closure by WVAO  Note: Review the DOE Correspondence Tracking System (WVAO-205) to determine the status of open items.	DOE/RW-0333P, Para. 16.2.5				
16.6	Determine and verify what action is taken in the event the required response/action date is bypassed.					
16.7	Verify that CAQs are evaluated for trends and that appropriate corrective action is taken for negative trends.	DOE/RW-0333P Para. 16.2.6				
16.8	Verify that CAQs are reported to the appropriate levels of management and that SCAQs are reported to upper levels of management.  Verify that SCAQs are evaluated for Stop Work, the cause of the condition determined and action taken to preclude recurrence identified.	DOE/RW-0333P Para. 16.2.3.A & 16.24.B & C				

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No.	Description					
16.9	Verify that records of CAQs and CA commitments are maintained and that follow ups are conducted to ensure that commitments are met and the records show effectiveness and completion of these actions.	DOE/RW-0333P Para. 16.2.5				

# Quality Assurance Audit Checklist

Audit I.D. No: 97VP-WV-AU-01		Audit Area: WEST VALLEY DEMONSTRATION PROJECT			Page 1 of 5	
Organization Evaluated: WVAO & WVNS		Audit Subject: CRITERION 17, QUALITY ASSURANCE RECORDS		Approved By: J. Conway		ATL Date: N/A
Date(s) of Evaluation: January 27-31, 1997		Type of Audit: QA PROGRAM		Approved By: <i>J. Conway</i>		HLW QAPM Date: 1/24/97
Attribute/Item/Description		Reference(s) (Requirement)	Description Of Activities & Items Examined, Objective Evidence Evaluated, and Persons Contacted	Results S = Sat. U = Unsat N/A	Verifier Initials/ Date	
No.	Description					
17.1	Verify that WVAO & WVNS implementing documents: <ul style="list-style-type: none"> <li>■ identify documents to become QA records</li> <li>■ identify submitting organizations.</li> </ul>	DOE/RW-0333P, 17.2.2 A				
17.2	Verify that WVAO & WVNS individuals: <ul style="list-style-type: none"> <li>■ who create QA records, ensure the records are legible, accurate, and complete.</li> <li>■ who handle QA records, protect records from damage or loss until submitted to the records system.</li> </ul>	DOE/RW-0333P 17.2.2 B & 17.2.2 C				

## Quality Assurance Audit Checklist

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No.	Description					
17.3	Verify that WVAO & WVNS QA records are complete when stamped, initialed, or signed and dated (dependent upon record media - i.e., magnetic, optical, etc.).	DOE/RW-0333P 17.2.2 D				
17.4	Verify that WVAO & WVNS QA records may be originals or copies.	DOE/RW-0333P 17.2.2 E				
17.5	Verify that WVAO & WVNS QA records are classified as lifetime or nonpermanent (criteria for classification).	DOE/RW-0333P 17.2.1 A				



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Audit I.D. No: 97VP-WV-AU-01		Audit Area: WEST VALLEY DEMONSTRATION PROJECT		Page 3 of 5	
Attribute/Item/Description		Reference(s) (Requirement)	Description Of Activities & Items Examined, Objective Evidence Evaluated, and Persons Contacted	Results S = Sat. U = Unsat N/A	Verifier Initials/ Date
No.	Description				
17.6	<p>Verify that a WVAO &amp; WVNS (record) receipt control system is established.</p> <ul style="list-style-type: none"> <li>■ responsibility for receiving QA records has been assigned.</li> <li>■ records protected from damage, deterioration, or loss.</li> <li>■ legibility &amp; completeness are verified.</li> <li>■ permits current and accurate assessment of record status.</li> <li>■ records indexed to ensure retrievability (includes location, identification, and retention).</li> <li>■ after receipt process submitted to storage.</li> </ul>	DOE/RW-0333P 17.2.3 A-F			
17.7	<p>Verify that WVAO &amp; WVNS has a records correction process.</p> <ul style="list-style-type: none"> <li>■ corrections include initials (or signature) and date.</li> <li>■ corrections approved by originating organization.</li> </ul>	DOE/RW-0333P 17.2.4 A&B			

# Quality Assurance Audit Checklist

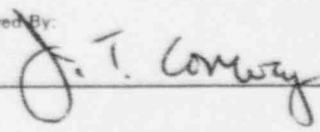
Audit I.D. No: 97VP-WV-AU-01		Audit Area: WEST VALLEY DEMONSTRATION PROJECT		Page 4 of 5	
Attribute/Item/Description		Reference(s) (Requirement)	Description Of Activities & Items Examined, Objective Evidence Evaluated, and Persons Contacted	Results S=Sat U=Unsat N/A	Verifier Initials/ Date
No.	Description				
17.8	<p>Verify that WVAO &amp; WVNS QA records are stored and preserved in predetermined storage facilities (in accordance with implementing documents).</p> <ul style="list-style-type: none"> <li>■ storage facility description.</li> <li>■ filing system description.</li> <li>■ transmittal verification.</li> <li>■ verify that records have been designated QA records.</li> <li>■ records are legible and complete.</li> <li>■ controls for records access, retrieval, and removal.</li> <li>■ methods for supplements and superseding records.</li> </ul>	DOE/RW-0333P 17.2.5 A			
17.9	<p>Verify that WVAO &amp; WVNS storage methods preclude deterioration of QA records.</p> <ul style="list-style-type: none"> <li>■ prevent damage from moisture, temperature, and pressure.</li> <li>■ attached in binders, placed in folders or envelopes for storage on shelves or in cabinets (containers are appropriate for media).</li> <li>■ provide adequate protection of special processed records (negatives, photographs, and magnetic media - moisture, temperature, light, electromagnetic fields and stacking).</li> <li>■ protected from unauthorized entry, larceny, and vandalism.</li> </ul>	DOE/RW-0333P 17.2.5 B			

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No.	Description					
17.10	Verify WVAO & WVNS storage facilities control access to QA records (list) and the records system provides for retrieval (time) based on record type.	DOE/RW-0333P 17.2.6				
17.11	Verify that OCRWM has been designated to retain WVAO & WVNS lifetime QA records and nonpermanent records are maintained 3 years, or as specified by procurement documents (no disposition until regulatory requirements are satisfied, operational status permits, and purchaser's requirements are satisfied).	DOE/RW-0333P 17.2.7				
17.12	Verify that WVAO & WVNS designated records (lifetime and other specilly identified records) are submitted to OCRWM for retention.	DOE/RW-0333P 17.2.8 A				
17.13	WVAO & WVNS QA records are temporarily stored in 1 hr. fire-rated containers or dual storage is provided (F/L or equivalent certification).	DOE/RW-0333P 17.2.10				
17.14	Verify a means for replacement, restoration, or substitution of lost or damaged WVAO & WVNS QA records has been identified.	DOE/RW-0333P 17.2.11				

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Organization Evaluated: WVAO & WVNS		Audit Subject: CRITERION 18-AUDITS		Approved By: J. Conway ATL		Date: N/A
Date(s) Of Evaluation: January 27, 1997		Type of Audit: QA PROGRAM		Approved By:  HLW QAPM		Date: 1/24/97
Attribute/Item/Description		Reference(s) (Requirement)	Description Of Activities & Items Examined, Objective Evidence Evaluated, and Persons Contacted	Results S = Sat. U = Unsat. N/A	Verifier Initials/ Date	
No	Description					
18.1.1	<p>Verify that WVAO &amp; WVNS have developed a procedure for the scheduling, planning, performing, and reporting internal &amp; external audits, including follow-up, that meets the requirement of DOE/RW-0333P, Section 18.2.1 through 18.2.21.</p> <p>Note: Use the WVNS QARD Matrix as a guide.</p>	DOE/RW-0333P Rev. 0 Para. 2.2.2.B				
18.1.2	<p>Verify that audits schedules are developed annually and updated quarterly and that the audits scheduled have been planned and performed.</p> <p>Note: Review audit schedule for 3rd &amp; 4th Qtr FY-94 and FY-95 to date. Review audit reports generated for the scheduled audits.</p>	QP-640, Rev. 10 Para. 6.3 & 6.3.1				
18.1.3	<p>Verify that auditors/technical specialists are appropriately qualified.</p> <p>Note: Qualification of Lead Auditors will be evaluated by the Auditor for Criterion 2.</p>	DOE/RW-0333P Para. 18.2.12 & 18.2.13				
18.1.4	<p>Verify that audit reports, containing the required information, are transmitted to the responsible levels of management of the audited organization.</p>	DOE/RW-0333P Para. 18.2.8 & QP-640 Para. 6.3.2				

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No.	Description					
18.1.5	Verify that follow-up is performed to assure timely response to audit findings and observations.	QP-640 Para. 6.3.2.B				
18.1.6	Verify that management of the audited organization is responsive to audit findings in determining appropriate corrective action and that follow-up action is taken by the auditing organization to verify that corrective action is accomplished as scheduled or tracked to completion.	DOE/RW-0333P Para. 18.2.9 & 18.2.11 QP-640 Para. 6.3.2.B				
18.1.7	Verify that the following audit records are being maintained as QA Records.  1. audit notification letter and audit plan.  2. written replies.  3. audit report and the closure report.	QP-640 Para. 6.3.2.C				

## Quality Assurance Audit Checklist

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No.	Description					
18.2.1 WVNS	Verify that audits are performed in accordance with written procedures or checklist by personnel who do not have direct responsibility for performing the activities being audited.  Refer to C/L item 18.2.8 for personnel selection.	QM-18, Rev. 6 Sec. 1.0				
18.2.2	Verify that internal and external audits are scheduled in a manner to provide coverage of ongoing QA program activities and at a frequency commensurate with the status and importance of the activity.	QM-18 Para. 2.2.1.a-b				
18.2.3	Verify that audit schedules are reviewed quarterly and revised as necessary.	QM-18 Para. 2.2.1.c				
18.2.4	Verify that regularly scheduled audits are supplemented by additional audits of specific subjects when necessary to provide adequate coverage.	QM-18, Para. 2.2.1.d				

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No.	Description					
18.2.5	Verify that internal audits of the WVNS QA program are performed at least once a year and that external audits are performed on a triennial basis supplemented by annual documented evaluations.	QM-18 Para. 2.2.1.e				
18.2.6	Verify that audit plans are prepared and issued by the Lead Auditor, for each audit, and identify the minimum elements specified as follows: <ol style="list-style-type: none"> <li>1. scope,</li> <li>2. requirements,</li> <li>3. audit personnel,</li> <li>4. activities to be audited,</li> <li>5. notification of organizations,</li> <li>6. applicable documents,</li> <li>7. schedules,</li> <li>8. written procedures or checklist to be used.</li> </ol>	QM-18, Para. 2.2.2.1.a, b & d				

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Audit I.D. No: 97VP-WV-AU-01		Audit Area: WEST VALLEY DEMONSTRATION PROJECT			Page 5 of 6	
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No.	Description					
18.2.7	Verify that audit results are reviewed by management responsible for the audited area and that conditions requiring prompt corrective action are reported immediately to the management of the audited organization.	QM-18 Para. 2.2.3.f & g				
18.2.8	Verify that audit reports are signed by the audit team leader, issued by the QA manager, and include the following information: <ol style="list-style-type: none"> <li>1. audit scope,</li> <li>2. auditors,</li> <li>3. persons contacted during the audit</li> <li>4. summary of results including effectiveness statements,</li> <li>5. description of adverse conditions to quality,</li> <li>6. Statement on effectiveness of the QA elements audited</li> </ol>	QM-18 Para. 2.2.4				



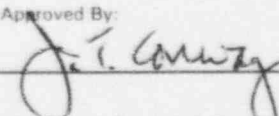
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No.	Description					
18.2.9	Verify that the adequacy of audit responses are evaluated by or for the auditing organization.	QM 18 Para. 2.2.5.b				
18.2.10	Verify that the following audit records are maintained; 1. audit plans, 2. audit reports, 3. corrective action responses, 4. record of completion of corrective action, 5. audit closure letter.	QM 18 Para. 2.2.7				

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Audit I.D. No: 97EA-WV-AU-01		Audit Area: WEST VALLEY DEMONSTRATION PROJECT			Page 1 Of 4	
Organization Evaluated: WVAO & WVNS		Audit Subject: Supplement I - SOFTWARE CONTROL		Approved By: J. Conway ATL		Date: N/A
Date(s) Of Evaluation: January 27-31, 1997		Type of Audit: OA PROGRAM		Approved By:  HLW QAPM		Date: 1/24/97
Attribute/Item/Description		Reference(s) (Requirement)	Description Of Activities & Items Examined, Objective Evidence Evaluated, and Persons Contacted	Results S = Sat. U = Unsat. N/A	Verifier Initials/ Date	
No.	Description					
19.1	Have life cycle plans for each software item important to waste acceptance been documented, approved and maintained?	DOE/RW-0333P 1.2.1A				
19.2	Have reviews been performed and documented of software baselines at the defined software control points?	DOE/RW-0333P 1.2.1B				
19.3	Has software verification and validation been performed prior to release?	DOE/RW-0333P 1.2.2A				
19.4	Do software verification and validation plans describe methods for verification and validation?	DOE/RW-0333P 1.2.2B				
19.5	Are software verification and validation activities accomplished or reviewed by an independent individual or organization?	DOE/RW-0333P 1.2.2C				
19.6	Is software verification performed and documented to ensure that the products of a life cycle phase meets the requirements established for that phase?	DOE/RW-0333P 1.2.3				
19.7	Are software validation activities (test plans and test cases) integrated into the software life cycle?	DOE/RW-0333P 1.2.4A				
19.8	Is testing the primary method of software validation?	DOE/RW-0333P 1.2.4B				
19.9	Does software validation of modifications to released software include regression testing?	DOE/RW-0333P 1.2.4C				
19.10	Has acquired software been validated to an approved plan to ensure that the software meets the requirements for its intended use?	DOE/RW-0333P 1.2.5A.1				
19.11	Is acquired software placed under configuration control?	DOE/RW-0333P 1.2.5A.2				

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No.	Description					
19.12	Has installation testing of acquired software been performed in the operational environment?	DOE/RW-0333P I.2.5B.1				
19.13	Are software activities sufficiently documented to demonstrate the ability of the software to meet the needs of the affected organization? Documentation shall include:  A. Requirements information; B. User information; C. Validation information; D. Information on reviews; E. Requirements and design information (not for acquired); F. Verification information (not for acquired);	DOE/RW-0333P I.2.6				
19.14	Once approved, are baseline elements placed under configuration management control?	DOE/RW-0333P I.2.6B.3				
19.15	Are the following documents available for software considered important to waste acceptance:  A. Software specific requirements specification; B. Users documentation (i.e., manuals, sample problems, installation procedures, etc.); C. Software validation results; D. Records of reviews of software baselines; E. Requirements and design information; F. Software verification results; G. Test records	DOE/RW-0333P I.2.6				

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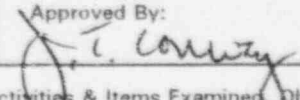
Audit I.D. No: 97EA-WV-AU-01		Audit Area: WEST VALLEY DEMONSTRATION PROJECT			Page 3 Of 4	
Attribute/Item/Description		Reference(s) (Requirement)	Description Of Activities & Items Examined, Objective Evidence Evaluated, and Persons Contacted	Results S = Sat. U = Unsat. N/A	Verifier Initials/ Date	
No.	Description					
19.16	<p>Verify the status of software that is important to the waste acceptance process such as:</p> <p>A. DCS software that controls the transfer of materials from the CFMUT and MFHT to the melter.</p> <p>B. DCS software that controls the melter temperature.</p> <p>C. The process control software (PCP) that predicts the PCT results.</p> <p>D. The analytical software that transfers data to the PCP.</p>	WVDP-074				
19.17	<p>Verify the effectiveness of procedures that establish a system that ensures the following:</p> <p>A. Configuration identification (baseline elements of software baseline)</p> <p>B. Configuration change control (a release and control process for baseline elements, changes to baseline elements formally controlled and documented)</p> <p>C. Configuration status accounting (listing of baseline elements and unique identifier, status of proposed and approved changes to the baseline element, brief chronology of software items including description of changes)</p>	DOE/RW-0333P 1.2.7				

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No.	Description					
19.18	Verify that CM controls include documentation of any modification and tests required if software is running on a system different from that which it was originally intended.	DOE/RW-0333P 1.2.6				
19.19	Is defect reporting and resolution system integrated with the software configuration management system?	DOE/RW-0333P 1.2.8A				
19.20	Verify the effectiveness of procedures that describe the software discrepancy reporting and corrective action system (resolution) and that the system is integrated with the CM system to ensure that:  A. Defects are documented and corrected (resolved)  B. Defects are assessed for criticality and impact on previous applications.  C. Corrections (resolutions) are reviewed and approved before changes to the computer software configuration (baseline elements) are made.  D. Preventive and corrective actions provide for appropriate notification of affected organizations.	DOE/RW-0333P 1.2.8B				
19.21	Are defects in software that adversely impact previous applications documented as conditions adverse to quality and controlled under section 16	DOE/RW-0333P 1.2.8C				
19.22	Are physical media containing images of computer software physically protected to prevent their inadvertent damage or degradation? (Media Control)	DOE/RW-0333P 1.2.9				
19.23	Verify the effectiveness of procedures established for controlling and documenting the use of software items, and sufficient to allow independent repetition?	DOE/RW-0333P 1.2.10A				
19.24	Are software uses approved and independently reviewed to ensure that the software is applicable and that inputs and assumptions are valid and traceable?	DOE/RW-0333P 1.2.10B				
19.25	What are the controls for software that has fallen outside the range of validation?	DOE/RW-0333P 1.2.10C				

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Date(s) of Evaluation: January 27-31, 1997		Type of Audit: QA PROGRAM		Approved By: 	HLW QAPM Date: 1/24/97
Attribute/Item/Description		Reference(s) (Requirement)	Description Of Activities & Items Examined, Objective Evidence Evaluated, and Persons Contacted	Results S = Sat. U = Unsat N/A	Verifier Initials/ Date
No.	Description				
21.1	Verify that scientific investigations needed to establish the acceptability of the high-level waste form satisfy the requirements of Supplement III of RW-0333P.	DOE/RW-0333P, Rev. 0, Supp. III, Section III.2.1			
21.2	Verify the use of scientific notebook (at WVNS and PNL) and for technical implementing documents in development of the PCT prediction model.	Section III.2.2			
21.3	Verify that the scientific notebooks are reviewed by an independent qualified individual to verify that there is sufficient detail and content to confirm the results without recourse to the original investigator.	Section III.2.2			

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Audit I.D. No: 97VP-WV-AU-01		Audit Area: WEST VALLEY DEMONSTRATION PROJECT			Page 2 of 2	
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No.	Description					
21.4	Verify that existing data used in HLW qualification utilized one or more of the following methods: -Corroborating data -Confirmatory testing -Peer Review	Section III.2.4				
21.5	Verify that the PCT prediction model has been validated by comparing analytical results with acquired data.	Section III.2.6				
21.6	Verify that DOE-WV provides over-sight of scientific investigations related to waste acceptance activities.					