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

AUDIT REPORT

OF

SCIENCE APPLICATIONS INTERNATIONAL CORPORATION

TECHNICAL AND MANAGEMENT SUPPORT SERVICES

LAS VEGAS, NEVADA

AND YUCCA MOUNTAIN SITE

AUDIT YMP-93-18

SEPTEMBER 27 THROUGH OCTOBER 1, 1993

Prepared by: Thomas E Rodgers **Date:** 10/28/93
Thomas E. Rodgers
Audit Team Leader
Yucca Mountain Quality Assurance Division

Approved by: R C Spence **Date:** 11/10/93
Donald G. Horton
Director
Office of Quality Assurance

1.0 EXECUTIVE SUMMARY

As a result of Quality Assurance (QA) Audit YMP-93-18, the audit team determined that Science Applications International Corporation/Technical and Management Support Services (SAIC/T&MSS) is satisfactorily implementing an effective QA program in accordance with the SAIC/T&MSS Quality Assurance Program Description Document (QAPD), Revision 7 and implementing procedures for QA Program Elements 1.0, 2.0, 5.0, 6.0, 12.0, 16.0, 17.0 and 18.0. No implementation of QA Program Element 13.0 could be identified due to lack of activity.

No Corrective Action Requests (CARs) were issued as a result of this audit. The audit team identified three deficiencies that were corrected during the course of the audit related to the performance of verification activities. These deficiencies are described in Section 5.5.2 of this report. Additionally, there were five recommendations resulting from the audit that are detailed in Section 6.0 of this report.

2.0 SCOPE

The audit was conducted to evaluate compliance to, and the effectiveness of, the SAIC/T&MSS QA Program as described in their QAPD and implementing quality procedures.

In addition, a representative sample of deficiencies identified during previous QA audits of SAIC/T&MSS relating to the elements audited were evaluated to determine the effectiveness of corrective action, as described in Section 5.5.3 of this report.

The QA program elements/requirements evaluated during the audit in accordance with the published audit plan are as follows:

QA PROGRAM ELEMENTS

1.0 Organization
2.0 Quality Assurance Program
5.0 Instructions, Procedures, Plans and Drawings
6.0 Document Control
12.0 Control of Measuring and Test Equipment
13.0 Handling, Storage, and Shipping
16.0 Corrective Action
17.0 Quality Assurance Records
18.0 Audits and Surveillances

The following QA program element/requirement was not evaluated during the audit because SAIC/T&MSS has no activities that implement this element:

9.0 Control of Processes

TECHNICAL AREAS

The scope of the audit did not include any technical areas.

3.0 AUDIT TEAM AND OBSERVERS

The following is a list of audit team members and their assigned areas of responsibility:

Individual	QA Program Element/Requirement
Thomas E. Rodgers, Audit Team Leader (ATL), Yucca Mountain Quality Assurance Division/ Quality Assurance Technical Support Services (YMQAD/QATSS)	1.0 and 2.0
Donald J. Harris, Auditor, YMQAD/QATSS	12.0 and 13.0
Raul A. Hinojosa, Auditor, YMQAD/QATSS	5.0, 6.0 and 17.0
Stephen R. Maslar, Auditor, YMQAD/QATSS	16.0 and 18.0
Richard L. Maudlin, Auditor, YMQAD/QATSS	16.0 and 18.0

No observers participated in the audit.

4.0 AUDIT MEETINGS

The preaudit meeting was held at SAIC/T&MSS facilities in Las Vegas, Nevada, on September 27, 1993. A daily debriefing and coordination meeting was held with SAIC/T&MSS management and staff, and daily audit team meetings were held to discuss issues and potential deficiencies. The audit was concluded with a postaudit meeting held at the SAIC/T&MSS facilities in Las Vegas, Nevada, on October 1, 1993. Personnel contacted during the audit are listed in Attachment 1 of this report. This list includes an indication of those who attended the preaudit and postaudit meetings.

5.0 SUMMARY OF AUDIT RESULTS

5.1 Program Effectiveness

The audit team concluded that, in general, the SAIC/T&MSS QA Program is adequate and is being satisfactorily implemented for the scope of this audit. Individually, QA Program Elements 1.0, 2.0, 5.0, 6.0, 12.0, 16.0, 17.0 and 18.0 are satisfactory in implementation. No implementation of QA Program Element 13.0 could be identified due to lack of activity.

5.2 Stop Work or Immediate Corrective Actions or Additional Actions

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

5.3 QA Program Audit Activities

Details of the QA program audit activities are provided in Attachment 2. A list of objective evidence reviewed during the audit is provided in Attachment 3.

5.4 Technical Activities

No technical activities were included in the scope of this audit.

5.5 Summary of Deficiencies

No CARs were issued as a result of this audit. The audit team identified three deficiencies that were corrected during the course of the audit related to the performance of verification activities.

A synopsis of the deficiencies corrected during the audit is contained in Section 5.5.2 of this report.

5.5.1 Corrective Action Requests

No CARs were issued as a result of this audit.

5.5.2 Deficiencies Corrected During the Audit

Deficiencies that are considered isolated in nature and require only remedial action can be corrected during the audit. The following three deficiencies were identified and corrected during the audit.

1. For external audit A93-02S, there was no documentation to demonstrate that audit checklists were used or that preaudit and postaudit conferences were conducted, as required by Work Instruction (WI) WI-QA-001. For internal audit A93-01, there was no documentation to demonstrate that preaudit and postaudit conferences were conducted. Objective evidence was subsequently located demonstrating that the above requirements had been satisfied.

2. A Surveillance Report Data Sheet (SRDS) was not completed and submitted to the Las Vegas Local Records Center (LV LRC) for T&MSS surveillance SR-93-002, as required by WI-QA-002. A SRDS was completed and transmitted to the LVLRC.

3. There was no documentation to demonstrate that external audit report A92-06S and internal audit report A93-01 were transmitted to the Director, YMQAD, as required by WI-QA-001. There was no documentation to demonstrate that Revision 0 of the fiscal year 1993 internal audit schedule was sent to the Director, Office of Quality Assurance (OQA), and the Director, YMQAD, as required by Work Instruction WI-QA-001. In addition, there was no documentation to demonstrate transmittal of Revision 2 to the Director, OQA. The above documents were transmitted to the appropriate personnel.

5.5.3 Follow-up of Previously Identified CARs

1. CAR YM-92-041 was issued May 29, 1992 for the improper alteration of a calibration document and closed on August 3, 1992. The review of calibration records during this audit did not identify any similar deficiencies.

2. CAR YM-92-042 was issued on May 29, 1992 for the performance of quality-affecting work before the completion of relevant training and closed on July 6, 1992. The review of personnel training records during this audit did not identify any similar deficiencies.

3. CAR YM-92-074 was issued on September 29, 1992 for indicating improper training for the management assessment team and closed on December 16, 1992. The review of documentation associated with the 1993 management assessment during this audit did not identify any similar deficiencies.

4. CAR YM-92-076 was issued on September 29, 1992 for the premature closure of a Quality Finding Report (QFR) and closed on December 8, 1992. The review of QFR records during this audit did not identify any similar deficiencies.

6.0 RECOMMENDATIONS

The following recommendations resulted from the audit and are presented for consideration by SAIC/T&MSS management.

1. T&MSS is resource limited in the areas of QA, Document Control, QA Records Management, and Technical Data Management to the extent that the quality of work may be adversely impacted. Manpower allocation should be re-evaluated to determine the potential impact and resultant consequences on quality-affecting work.

2. It is recommended that Standard Practice Procedure SP 1.35 be revised to include precautions to prevent the inadvertent use of outdated Vendor Manual/Vendor Technical Information (VM/VTI).

3. The practice of applying uniform QA controls to both quality and non-quality affecting work should be evaluated, since it may no longer be appropriate nor realistic based on the limited SAIC/T&MSS QA resources available.

4. Efforts should be made to issue quarterly trend reports within 30 days after the reporting period to ensure timely feedback and follow-up.

5. It is recommended that WI-QA-006 be revised to provide criteria to be used for the determination of quality trends.

7.0 List of Attachments

Attachment 1: Personnel Contacted During the Audit
Attachment 2: Audit Details
Attachment 3: List of Objective Evidence Reviewed During the Audit

ATTACHMENT 1

PERSONNEL CONTACTED DURING THE AUDIT

Name	Organization/Title	Preaudit Meeting	Contacted During Audit	Postaudit Meeting
C. Barron	SAIC/Document Administration Specialist	X	X	X
R. S. Bostian	SAIC/Resource Management/ APM	X		X
R. Brown, Jr.	SAIC/Buyer	X		
P. Chadwick	SAIC/YMP Training/Deputy Department Manager	X	X	
D. K. Chandler	SAIC/Deputy Project Manager	X	X	X
J. E. Clark	SAIC/Quality Assurance Liaison	X	X	X
J. Conway	SAIC/Meteorological Field Activities Lead Technician		X	
L. D. Croft	SAIC/EFPD, Manager			X
G. Donaldson	SAIC/REFPD/M&TE Custodian	X	X	X
J. F. Dunham	IRG	X	X	
J. N. Estella	SAIC/Staff Advisor	X		X
P. M. Fransioli	SAIC/Scientist	X	X	
H. T. Greene	QATSS/QA Division Manager	X		X
J. B. Harper	SAIC/Quality Assurance Manager	X	X	X
M. W. Harris	SAIC/Environmental & Regional Programs/APM	X	X	X
R. G. Helms	SAIC/Senior Staff	X	X	X
D. T. Hoxie	USGS		X	
W. Jacobs	SAIC/Environmental Compliance & Permitting Department		X	
M. Jenkins	SAIC/Environmental Monitoring Technician		X	
K. B. Johnson	SAIC/Deputy Quality Assurance Manager	X	X	X
S. Johnson	SAIC/Human Resources Department/Manager		X	
C. Jones	SAIC/Meteorological Field Activities Coordinator		X	
A. Keyes	SAIC/Purchasing Manager	X	X	
M. Malone	SAIC/Quality Assurance Engineer	X	X	X
G. Mansur	SAIC/Training Division Manager		X	

C. McEntee	SAIC/Document Administration Specialist	X	X	X
D. Meara	SAIC/Subcontractor Administrator	X	X	
H. Moomey	IRG/Management Specialist		X	
W. Osenbaugh	SAIC/Senior Buyer	X	X	X
T. L. Pane	SAIC/Forms/Data Management	X	X	X
J. K. Prince	SAIC/HPERD/Manager	X	X	
R. R. Rinderman	SAIC/Lead Quality Engineer	X	X	X
K. Roesner	SAIC/REFPD/M&TE			X
C. Shannon	M&O		X	
R. E. Spence	DOE/YMQAD/Division Director			X
J. Statler	SAIC/DAD/Manager	X	X	X
C. D. Sorensen	SAIC/REFPD, Manager	X	X	X
T. D. Tait	SAIC/Information & Planning Systems/APM	X	X	X
A. L. Temple	SAIC/Quality Assurance Specialist	X	X	X
M. D. Voegele	SAIC/Project Manager	X	X	X
T. Wooderson	IRG/Management Specialist		X	

Legend:

APM - Assistant Project Manager
DAD - Data Administration Department
DOE - U. S. Department of Energy
EFPD - Environmental Field Programs Division
HPERD - Health Physics/Environmental Radioactivity Division
IRG - Integrated Resources Group
M&O - Management and Operating Contractor
M&TE - Measuring and Test Equipment
QATSS - Quality Assurance Technical Support Services
REFPD - Radiological/Environmental Field Programs Department
SAIC - Science Applications International Corporation
USGS - United States Geological Survey
YMQAD - Yucca Mountain Quality Assurance Division

ATTACHMENT 2

AUDIT DETAILS

The following is a summary of the SAIC/T&MSS QA Program activities covered during the audit. The list of objective evidence reviewed and specific procedures audited is provided in Attachment 3.

1.0 ORGANIZATION

The evaluation of QA Program Element 1.0 was based on interviews with SAIC/T&MSS personnel and examination of objective evidence to determine the degree of compliance with selected requirements from the SAIC/T&MSS QAPD and procedures TMSS/93-003 and SP 1.61. The specific requirements selected for evaluation of compliance and effectiveness are listed below.

Requirements:

SAIC/T&MSS QAPD, Revision 7 and Organizational Description (OD)(TMSS/93-003)

- The organizational structure, functional responsibilities, levels of authority, and lines of communication for activities affecting quality are documented.
- Organizations responsible for assuring that an appropriate QA program has been established and verifying that activities affecting quality have been correctly performed, have sufficient authority, access to work areas, and organizational freedom to identify and effectively resolve quality problems.
- The quality organization has direct access to responsible management at a level where appropriate action can be affected.
- The quality organization reports to a management level such that required authority and organizational freedom are provided, including sufficient independence from cost and schedule considerations.
- The organizational structure and responsibility assignments are such that quality is achieved and maintained by those assigned the responsibility for performing work.
- The achievement of quality is verified by persons or organizations not directly responsible for performing the work.
- The responsibility and authority of each organization is clearly established and documented.

- The external interfaces between organizations are documented.
- Interface responsibilities are defined and documented.

Dispute Resolution (SP 1.61)

- No implementation of this procedure has occurred.

Results:

The evaluation of these procedures was based upon personnel interviews, review of the procedural requirements, and evaluation of objective evidence. T&MSS is resource limited in the areas of QA, Document Control, QA Records Management, and Technical Data Management to the extent that the quality of work may be adversely impacted. A recommendation was made to re-evaluate manpower allocation to determine the potential impact and resultant consequences on quality-affecting work.

Based on the above, QA Program Element 1.0 was determined to be satisfactory.

2.0 QUALITY ASSURANCE PROGRAM

The evaluation of QA Program Element 2.0 was based on interviews with SAIC/T&MSS personnel and examination of objective evidence to determine the degree of compliance with selected requirements from procedures SP 1.2, SP 1.31, SP 1.32, SP 1.60, SP 1.62, SP 1.70 and SP 1.71. The specific requirements selected for evaluation of compliance and effectiveness are listed below.

Requirements:

Preparation, Review and Approval of T&MSS QA Policy, OD and QA Program Overview (SP 1.2)

- Prepare a QA Policy (TMSS/93-001) that defines the responsibilities and authorities associated with the QA Program for the following:

  a. T&MSS Project Manager (PM)
  b. T&MSS line organizations
  c. T&MSS QA organizations

- Prepare an OD (TMSS/93-003) that provides definitions of responsibilities and authorities of:

  a. T&MSS organizational units
  b. T&MSS QA organization
  c. Overall organizational structure and its internal and external interfaces

- Prepare a QA Program Overview (TMSS/93-002) document that establishes a structured system of QA implementing documents.

- Prepare document review packages and perform reviews for the above documents.

- Assign technical reviewer and document competence.

- Ensure that delegated reviewers are qualified and are independent of the document content.

- Reviewer comments are adequately resolved and reviewer concurrence is documented.

- Obtain final signature approvals and issue documents. YMQAD Director acceptance of the OD is required.

- The record package contains:

  a. Approved document
  b. Form TMSS/098, Document Review and Sign-off, IAW SP 1.2
  c. Form TMSS/030, Controlled Document Issuance Authorization, IAW SP 1.34

Initial Evaluation, Qualification, Indoctrination, and Training of T&MSS Personnel (SP 1.31)

- Identify the appropriate Position Description (PD), complete the PD Supplement (PDS), and conduct evaluation of employee qualifications. Document evaluation on Position Qualification Form (PQF).

- Document employee's assignment on Training Assignment Form (TAF). Enter assignment completion date of no more than 30 working days. Personnel shall be trained to the applicable documents prior to performing quality-affecting work.

- Enter assigned training into tracking system and file appropriate PD and PDS in employee's training file.

- Enter completion of employee's training in tracking system based upon completed TAF.

- Verify and document the education and experience of personnel performing quality-affecting activities.

- Conduct an evaluation of quality-affecting activities performed by employee if verification can't be made or requirements are not met.

- The employee's training file contains:

  a. Completed TAF
  b. Notification of slippage, as applicable
  c. Verification statement
  d. PQF

- Additional training is conducted, as necessary.

- Changes to documents are monitored.

- Completion of training is documented on an appropriate training form in the employee's training file.

- Access to privileged records is restricted.

- Individual's Training and Qualification file consists of the following:

  a. PQF
  b. TAF
  c. Statement attesting to verification of education and experience
  d. PD
  e. PDS
  f. Applicable memoranda and correspondence
  g. Training Waiver
  h. IQ

Management Assessment (SP 1.32)

- Assessments shall be performed by personnel outside of the QA organization.

- Initiate an assessment on an annual basis that evaluates:

  a. Adequacy of organizational structure and staff
  b. Adequacy of T&MSS QA Program
  c. Adequacy of Personnel Qualification and Training Program
  d. Effectiveness of the Nonconformance and Corrective Action Program
  e. Adequacy of the T&MSS QA Program management information tracking, evaluation, and reporting system

Note: Assessment scope shall include QA unless an audit of the QA organization has been performed.

- Management Assessment Team (MAT) personnel are selected from the following options:

  a. Independent contractor
  b. T&MSS, selected from various disciplines with appropriate education and experience (T&MSS QA personnel shall not be used)
  c. Combination of above

- The Assessment Team Leader is identified.

- The Assessment Team Leader and Team Members have the necessary knowledge of documents and program requirements related to the assessment area. Training and qualification of the MAT personnel has been documented IAW SP 1.31.

- Prepare a Management Assessment Plan (MAP) that considers the following:

  a. Scope
  b. Methodology
  c. Schedule
  d. Listing of Team personnel
  e. Documents to be reviewed
  f. Personnel to be interviewed
  g. Organizations to be assessed
  h. Title and signature page for Team Leader (TL) (preparer) and PM (approver)

- Prepare a Management Assessment Report (MAR) that considers the following:

  a. Executive Summary
  b. Scope
  c. List of personnel contacted and at pre and postassessment meetings
  d. Positive activities and innovations
  e. Adverse Conditions in sufficient detail to allow effective corrective action
  f. Recommendations

- Unresolved Conditions Adverse to Quality are documented as QFR/MCAR(s) IAW SP 1.37. Listing of QFR/MCAR(s) is included in the Management Assessment Records Package (MARP).

- Obtain concurrence on the MAR from all team members. Report is signed by the TL.

- Report is reviewed and approved by the PM.
- Develop corrective action plan, as necessary.
- Track corrective action through completion.
- Document completion of assessment and submit records package within 10 days of the completion of corrective action.
- The MARP contains the following documentation:

  a. Training and qualification documentation
  b. MAP
  c. Schedule and notification letter (if used)
  d. MAR
  e. Listing of QFR/MCAR(s), as appropriate
  f. Corrective Action Plan and associated timetable
  g. Documentation illustrating resolution, tracking, and completion of action items

- The MARP is designated as "lifetime" IAW SP 1.36.

Readiness Review (SP 1.60)

No implementation of this procedure has occurred.

Peer Review (SP 1.62)

No implementation of this procedure has occurred.

Interactions with the Assessment Team for Item Classification (SP 1.70)

No implementation of this procedure has occurred.

Graded Application of QA Controls (SP 1.71)

- Determine the applicable QA Program coverage for meteorological monitoring, radiological monitoring, and air quality monitoring.
- Determine if the above work is adequately covered by existing Quality Assurance Grading Reports (QAGR). If above work is being covered under existing QAGR's, ensure cited provisions are met.

- Determine if new or revised QAGR's were necessary to support the above work. If so, ensure that cited provisions were met.

- Review the QAGR Status Index.

- Review the Yucca Mountain Site Characterization Q-List.

Results:

The evaluation of these procedures was based upon personnel interviews, review of the procedural requirements, and evaluation of objective evidence. The level of documentation in the Quality Assurance Requirement Procedures being assembled for the 1992 Management Assessment was excellent, especially in the area of the corrective action process through closure for all identified issues. Personnel qualification and training records assembled and maintained by the Yucca Mountain Project Training Center are extremely complete, accurate, and thorough. The 1993 MAP was revised during the audit to correct minor inconsistencies identified by the audit team.

Based on the above, QA Program Element 2.0 was determined to be satisfactory.

5.0 INSTRUCTIONS, DRAWINGS AND PROCEDURES

The evaluation of QA Program Element 5.0 was based on interviews with SAIC/T&MSS personnel and examination of objective evidence to determine the degree of compliance with selected requirements from procedures SP 1.1, SP 1.7, and SP 1.35. The specific requirements selected for evaluation of compliance and effectiveness are listed below.

Requirements:

Preparation, Review and Approval of T&MSS Procedures (SP 1.1)

- Custodian prepares and processes the procedure in accordance with the steps outlined on form TMSS/302, New Procedure Checklist.

- Responsible APM assigns a technical reviewer who is qualified to perform a review of the technical adequacy of the procedure and is not materially responsible for the content of the procedure.

- Responsible APM documents the competence of the technical reviewer in accordance with SP 1.31.

- Technical reviewers review the procedure in accordance with the steps outlined on form TMSS/098, Document Review and Sign-off.

- Custodian prepares and processes the procedure in accordance the steps outlined on form TMSS/303, Procedure Revision Checklist.

- Custodian or other staff member verifies that the maximum number of Interim Change Notices (ICNs) to the procedure has not been exceeded or that one year after the effective date of the first ICN has not passed.

- Custodian prepares the ICN in accordance with the steps outlined on form TMSS/304, Interim Change Notice Checklist

- If the WI revision is necessary and the normal ICN or revision process would not be completed in a timeframe that would adequately sustain ongoing activities, the Responsible Manager (RM) obtains verbal approval as follows:

  - Contacts the responsible APM and the T&MSS Quality Assurance Manager (QAM) to discuss the proposed change(s).
  - Obtains verbal concurrence from the responsible APM and the T&MSS QAM.
  - In dark ink, records the time and date of approval and the VICN number in the upper left corner of each changed page of the controlled copies of the WI that will be in use.
  - Assigns a Custodian to prepare and obtain approval of an ICN or revision to the WI within two working days of receipt of verbal approval.

T&MSS Forms Management (SP 1.7)

- Use of the current version of a T&MSS form is mandatory.

- The effective date for forms whose use is required by a T&MSS procedure shall be the same as the procedure, revision or ICN under which the form will be issued.

Preparation, Review and Approval of T&MSS Documents and Use and Control of VM/VTI (SP 1.35)

No implementation of this procedure has occurred.

Results:

The evaluation of these procedure was based upon personnel interviews, review of procedural requirements, and evaluation of objective evidence. This included reviews of procedure preparation, procedure revision, ICN issuance, and referenced or included form updating and procedure cancellation. A recommendation was made to revise SP 1.35 to include precautions to prevent the inadvertent use of outdated VM/VTI.

Based on the above, QA Program Element 5.0 was determined to be satisfactory.

6.0 DOCUMENT CONTROL

The evaluation of QA Program Element 6.0 was based on interviews with SAIC/T&MSS personnel and examination of objective evidence to determine the degree of compliance with selected requirements from procedures SP 1.34 and WI-QA-014 . The specific requirements selected for evaluation of compliance and effectiveness are listed below.

Requirements:

T&MSS Document Control (SP 1.34)

- Document Control Center (DCC) reviews the document distribution package to ensure inclusion of all necessary documentation for compliance with governing procedures and for correct completion of the CDIA.
- DCC assembles controlled documents and stamps with the controlled copy stamp.
- DCC transmits the document copies, accompanied by the Document Transmittal/Acknowledgement Record (DTAR), to the distribution list of Document Holders (DHs) identified on the CDIA and to other DHs as identified by T&MSS management.
- DH's return the signed DTAR to the DCC on or before the due date indicated.
- DCC issues form TMSS/021, Reminder Notice, to the DH if the DTAR is not received within five working days of the due date indicated on the DTAR.
- DCC issues form TMSS/033, Decontrol Notice, if the Reminder Notice has not been received within five working days of the due date indicated on the Reminder Notice.
- DCC removes the decontrolled DH from the distribution list for the document.
- DCC forwards the DTAR to the DH of the cancelled document.
- DH returns the signed DTAR to the DCC on or before the due date.

T&MSS Quality Assurance Review of Quality Documents (WI-QA-014)

- Performs document review in accordance with the controlling procedure: SP 1.1, SP 1.2, or SP 1.35. Form TMSS/245, QA Document Review Checklist, is used.

- Records comments on form TMSS/095, Document Comments, and completes form TMSS/098, Document Review and Sign-off, as appropriate. If there are no comments, sign and date form TMSS/098.

- Enters the following document review information into the Document Review Log:

  a. Designated QA reviewer.
  b. Review completion date.
  c. Timing and status indicator
  d. Review status code:
     A = Approved
     C = Approved with comments
     D = Disapproved
     S = Signed

Results:

The evaluation of these procedures was based on interviews, review of procedural requirements and examination of objective evidence. This included the review of document distribution packages, stamped controlled documents, listings of dates of distribution for selected procedures, listings of dates the DTARs were returned by the DHs for these selected procedures, listings of dates of issue of DTARs for selected cancelled procedures, dates these DTARs were returned to DCC, record packages for selected procedures reviewed by the T&MSS QA organization, and review of the QA Document Review Log for selected attributes.

Based on the above, QA Program Element 6.0 was determined to be satisfactory.

12.0 CONTROL OF MEASURING AND TEST EQUIPMENT

The evaluation of QA Program Element 12.0 was based on interviews with SAIC/T&MSS Radiological/Environmental Field Programs Department and QA personnel and examination of objective evidence to determine the degree of compliance with selected requirements from procedure WI-RED-006. The specific requirements selected for evaluation of compliance and effectiveness are listed below.

Requirements:

Control of Measuring and Test Equipment (WI-RED-006)

- The M&TE/Operating Equipment (OE) Custodian shall verify the "as-found" condition to determine if M&TE/OE was out-of-calibration (as noted on the accepted calibration certificate).

- Whenever quality-affecting M&TE is found out-of-calibration (out-of-tolerance), the M&TE/OE Custodian shall:

  a. Issue an Nonconformance Report (NCR) in accordance with SP 1.23.

  b. Perform a documented evaluation that determines the validity and acceptability of measurements performed since the last calibration, and that inspections or tests are repeated as necessary on items determined to be suspect.

- The M&TE/OE Custodian shall attach a DOE/T&MSS Property Tag per SP 1.50 if the M&TE/OE is new (the means of attachment shall not impair the function or accuracy of the equipment).

- The M&TE/OE Custodian shall attach a calibration label to M&TE/OE if the calibration certificate is acceptable; and if the calibration was performed by a vendor, the M&TE/OE Custodian shall annotate "Vendor" on the calibration label.

- The M&TE/OE Custodian shall establish an M&TE/OE List that includes:

  a. Unique identification of M&TE/OE.
  b. Calibration due date and interval where applicable.

- The M&TE/OE Custodian shall establish a history file for each M&TE/OE device after receiving the acceptance test documentation or an acceptable calibration certificate. Each file shall contain information relating to the following as a minimum:

  a. Certificates of calibration.

  b. Calibration data and documentation of the conduct of performance audits and performance checks.

  c. Applicable NCRs.

  d. Required accuracy for the device.

- The RM shall prepare M&TE/OE work instructions in accordance with SP 1.1 or evaluations per WI-RED-004. The WI or evaluation includes, as applicable, the requirements listed below when calibration and performance audits or checks are performed.

a. Datasheets are to record data during calibration of M&TE/OE. Completed datasheets are the certificates of calibration; therefore, the following information shall be included as a minimum:

- Identification (ID) of equipment calibrated/manufacturer, model and serial numbers, and ID number as applicable.
- ID of calibration standards/manufacturer, model, serial numbers, and calibration date.
- Accuracy of the principal calibrating instruments and units of measurement where applicable.
- Calibration procedure number and revision number.
- Calibration data and reflecting "as-found" condition, if applicable, and "as-left" condition. Sufficient data points shall be recorded to verify that the device is in calibration.
- Specific readings of environmental conditions affecting the calibration, such as temperature, humidity, vibration as appropriate.
- A statement at the bottom of each datasheet recording a successful calibration, which indicates the results and acceptability of the calibration.
- Space for the signature of the individual performing the calibration and date of calibration.
- Space for the RMs signature and date documenting the review of calibration data.

- Where there are no calibration standards traceable to nationally recognized standards, there shall be a QA review and approval for the technical basis for the calibration method prior to calibration of the M&TE/OE.

- Where the calibration standard has an accuracy equal to or less than that of the equipment being calibrated, the technical basis for acceptance shall be documented and this documentation shall be forwarded to the M&TE/OE Custodian for inclusion in the M&TE/OE history file.

- NCRs shall be required to be written in accordance with SP 1.23 whenever an out-of-tolerance condition is found. A copy of the NCR shall be forwarded to the M&TE/OE Custodian.

- Calibrations shall be performed both before and after use, when the M&TE is used in one-time only application.

- All M&TE/OE devices shall be identified and included on the M&TE/OE List.

- A status indicator system to indicate M&TE/OE operating status shall be in place (in addition to the Hold Tag required for an NCR).

- M&TE and calibration standards shall be stored in a controlled storage area which permits accuracy to be maintained and which is locked when not attended. This area shall provide adequate physical and environmental protection and the area shall be appropriately labeled. (Note: If a cabinet or room is used, it must be located in an office or laboratory-type environment).

- Special conditions for handling and storage of M&TE shall be consistent with vendor requirements on the Purchase Order (PO) or T&MSS procedures.

- An M&TE and Standards Usage Log shall be provided to document the use of M&TE and the Usage Log shall identify any person checking out the M&TE, the dates the M&TE was used, and the datasheet produced, if any.

- NCRs shall be initiated by the technician or the M&TE/OE Custodian whenever M&TE/OE is found out of calibration during re-calibration.

- When an NCR has been issued in accordance with the checklist item, an evaluation shall be performed to determine the validity of results obtained using the equipment since its last valid calibration. This evaluation shall include a determination of acceptability for previously collected data, processes monitored, and items previously inspected or tested.

- A Recall System shall be implemented and Recall Notices shall be issued to the RMs at least two months prior to the calibration due date.

- For lost M&TE/OE, the RM shall determine if the lost M&TE/OE was used for quality-affecting work, since its last calibration and issues an NCR in accordance with SP 1.23 if it was used for quality-affecting work to ensure that affected data is evaluated for impact by the potentially nonconforming condition.

- WIND DIRECTION SENSORS shall be sent to qualified outside vendors and the results shall be documented on calibration certificates provided by the calibrating agent. The M&TE/OE Custodian shall attach a calibration label to the equipment with the notation "Vendor" on the calibration label.

- WIND SPEED SENSORS shall be sent to qualified outside vendors and the results shall be documented on calibration certificates provided by the calibrating agent. The M&TE/OE Custodian shall attach a calibration label to the equipment with the notation "Vendor" on the calibration label.

- SOLAR RADIATION SENSORS shall be sent to qualified outside vendors and the results shall be documented on calibration certificates provided by the calibrating agent. The M&TE/OE Custodian shall attach a calibration label to the equipment with the notation "Vendor" on the calibration label.

- The Site Technician (ST) shall perform the calibration of the DELTA-TEMPERATURE SENSORS in with accordance Section 5.4 of T&MSS procedure WI-MET-001, Revision 2, effective 6/3/93. The calibration results shall be within the specified tolerance.

- The ST shall have the calibration of the BAROMETRIC PRESSURE SENSORS performed in accordance with Section 5.6 of T&MSS procedure WI-MET-001, Revision 2, effective 6/3/93. The calibration results shall be within the specified tolerance.

- The ST shall perform the calibration of the RELATIVE HUMIDITY AND DEW POINT SENSORS in accordance with Section 5.7 of T&MSS procedure WI-MET-001, Revision 2, ICN 2. The calibration results shall be within the specified tolerance.

Results:

The evaluation of these procedures was based upon personnel interviews, review of the procedural requirements, and evaluation of objective evidence. SAIC/T&MSS has demonstrated considerable progress in the area of M&TE since the previous audit.

Based on the above, QA Program Element 12.0 was determined to be satisfactory.

13.0 HANDLING, STORAGE AND SHIPPING

The evaluation of QA Program Element 13.0 was based on interviews with the SAIC/T&MSS Radiological/Environmental Field Programs Department and QA personnel, and examination of objective evidence to determine the degree of compliance with selected requirements from procedure SP 1.28. The specific requirements selected for evaluation of compliance and effectiveness are listed below.

Requirements:

Procurement of Quality Affecting Items and Services (SP 1.28)

No implementation of this procedure has occurred.

Results:

The evaluation of this procedure was based upon personnel interviews, review of the procedural requirements, and evaluation of objective evidence. The SAIC/T&MSS Procurement Division's Senior Buyer demonstrated an excellent knowledge of the status and control of the procurement process and records.

No implementation of QA Program Element 13.0 could be identified due to lack of activity.

16.0 CORRECTIVE ACTION

The evaluation of QA Program Element 16.0 was based on interviews with SAIC/T&MSS quality personnel and examination of objective evidence to determine the degree of compliance with selected requirements form procedures SP 1.37 and WI-QA-006. The specific requirements selected for evaluation of compliance and effectiveness are listed below.

Requirements:

Corrective Action (SP 1.37)

- Conditions adverse to quality are evaluated to determine if a potential SWO condition exists.
- Form TMSS/057, Quality Finding Report (QFR) Management Corrective Action Report (MCAR), is used to document QFR/MCAR conditions.
- Justification of invalid QFR/MCAR conditions are documented on form TMSS/057 Continuation Page.
- All QFR/MCAR conditions are evaluated to determine whether the adverse condition constitutes a significant condition adverse to quality.
- All TMSS/057 forms have Block 2 completed.
- A preliminary trending code is assigned on Block 13 of Form TMSS/057.
- QA manager signs and dates Block 14 of form TMSS/057
- A status log exists for tracking QFR/MCAR conditions and information entered includes:
  - Unique Number
  - Responsible Organization
  - Date of Issue
  - Date of Response and Closure
  - Whether a Stop Work condition was identified

- Distribution of the QFR/MCAR to:

  - T&MSS Project Manager
  - QA Manager
  - Applicable APMs

- Responses are provided by the specified due date. If not, proper action is taken to request an extension in accordance with paragraph 4.10.

- Responses to QFR/MCAR conditions follow format of Exhibit 7.

- Responses ensure that QA program requirements are met.

- Revision to QFRs/MCARs are properly made.

- Corrective action implementation is verified prior to close-out of the QFR/MCAR.

- The QA record package for each QFR/MCAR is submitted within 10 working days of the closure date on the QFR/MCAR. Records are to include:

  - TMSS/057 completed form
  - Memorandum (s) generated by the procedure
  - QFR/MCAR responses and relevant correspondence

Trend Analysis (WI-QA-006)

- A trend analysis code is assigned to each deficiency document.

- Trend Analysis Reports (TARs) are prepared on a quarterly basis (every three months).

- The following documents are used to compile the report:

  - NCRs
  - QFRs
  - MCARs
  - DOE CARs
  - NCR Findings

- Trend information is plotted on charts.

- Current information is compared to previously issued TARs.

- TARs contain the following, as appropriate:

  - Summary
  - Positive/negative trends
  - Trend analysis charts
  - Results of any investigations for potential adverse trends
  - Identification of Deficiency Reports as a result of investigations

- QAM directs investigations to determine if actual adverse trends exist. Actions are documented via surveillances, NCRs, QFRs, MCARs, etc.

- Trend reports are distributed to:

  - T&MSS PM
  - T&MSS APM
  - YMPO QA Division Director

- A QARP is submitted to the LRC containing the TAR and the issuing memorandum.

Results:

The evaluation of these procedures was based upon personnel interviews, review of the procedural requirements, and evaluation of objective evidence. The following recommendations were made:

1. Quarterly trend reports should be issued within 30 days after the reporting period to ensure timely feedback and followup.

2. WI-QA-006 should be revised to provide specific criteria to be used for the determination of quality trends.

3. The practice of applying uniform QA controls to both quality and non-quality affecting work should be evaluated, since it may no longer be appropriate nor realistic based on the limited SAIC/T&MSS QA resources available.

Based on the above, QA Program Element 16.0 was determined to be satisfactory.

17.0 QUALITY ASSURANCE RECORDS

The evaluation of QA Program Element 17.0 was based on interviews with SAIC/T&MSS personnel and examination of objective evidence to determine the degree of compliance with selected requirements from procedure SP 1.36. The specific requirements selected for evaluation of compliance and effectiveness are listed below:

Requirements:

T&MSS Records Management (SP 1.36)

- Limit access to privileged records to record sources, supervisory personnel of record sources, records management staff, auditors and for training records only, the designated training personnel.

- Records and records packages shall be transmitted to the LV LRC within ten working days after the date of completion, authentication,or receipt. Therefore, they should be submitted to Records Administration within seven working days.

- Maintain in-process records so that they are retrievable.

- Ensure that records and records packages are legible and will produce a microfilm image that is legible. Records may be original or copies.

- All blanks on completed records shall be filled in or "N/A" entered unless the record clearly states that only a portion of the record must be completed or a statement is provided that states that all blanks are intentional.

Results:

The evaluation of this QA program element was based on interviews of T&MSS personnel, review of procedural requirements, and examination of objective evidence. The Data Administration Department currently performs QA Records Management activities that add value and enhance the overall quality of the final product.

Based on the above, QA Program Element 17.0 was determined to be satisfactory.

18.0 AUDITS

The evaluation of QA Program Element 18.0 was based on interviews with SAIC/T&MSS personnel and examination of objective evidence to determine the degree of compliance with selected requirements from procedures WI-QA-001, WI-QA-002, and WI-QA-005. The specific requirements selected for evaluation of compliance and effectiveness are listed below.

Requirements:

Audits (WI-QA-001)

- Form TMSS/054, Yearly Internal Audit Schedule Checklist, is used to determine potential audits.

- An annual internal audit schedule is prepared.
- An internal audit schedule is issued annually to the following:
  - OCRWM Director of QA
  - YMQAD Director
  - T&MSS PM
  - Applicable APM
- An external audit schedule is prepared.
- Performance based audits of suppliers are scheduled based on work activities.
- External audits are identified on the Quality Activities List.
- Supplemental audits are conducted if needed.
- Lead Auditor (LA) is selected for each audit and qualification per WI-QA-005 are verified.
- LA selects audit team members who are independent of the work being audited.
- Technical specialists or management representatives are part of the audit team, if appropriate.
- An audit plan is developed for each audit using form TMSS/147, QA Audit Plan.
- The QAM approves each Audit Plan.
- Audit Report Checklists are prepared for each audit in accordance with form TMSS/145, QA Audit Report Checklist.
- LA approves the QA Audit Report Checklist.
- A memorandum of advance notifications provided the organization being audited.
- The Auditor conducts a preaudit conference with the organization being audited.
- The QA Audit Report Checklists are used to conduct the audit.
- The QA Audit Report Checklists are properly completed.
- Conditions found that require further action are documented on a QFR/MCAR or an NCR.

- LA prepares and signs the QA Audit Report using form TMSS/146, QA Audit Report.

- The following information is contained in each Audit Report:

  - Description of scope
  - Names of auditors
  - Personnel contacted
  - Summary of documents reviewed, persons interviewed and specific results
  - Summary of checklist contents
  - A statement of QA program effectiveness
  - A description of each reported adverse audit finding

- The QAM reviews and signs all Audit Reports.

- Any QFRs/MCARs are attached to the Audit Report.

- All Audit Reports are issued within 20 working days after the postaudit conference.

- Audit Reports are issued to:

  - YMQAD Director
  - T&MSS PM
  - T&MSS APM
  - T&MSS QAM
  - Management of the supplier or contractor

- A postaudit conference with management is conducted by the LA.

- The LA monitors the status of response to QFRs/MCARs.

- The LA submitted the following as a lifetime QARP:

  - TMSS/147, QA Audit Plan
  - TMSS/146, QA Audit Report
  - TMSS/145, QA Audit Report Checklist

- The QAM submits the following as non-permanent QA records:

  - Internal and external audit schedule
  - Form TMSS/054, Yearly Internal Audit Schedule Checklist

Surveillances (WI-QA-002)

- Surveillances assess in-process activities observation and/or examination.
- Surveillances evaluate the technical adequacy and quality implementation of the activity being assessed.
- Independence of the personnel conducting the surveillances is assured.
- Written or verbal notification is provided to the responsible APM/Department Manager of the forthcoming surveillance.
- The notification includes the following:
  - Activity to be surveilled
  - Applicable procedures/documents
  - Surveillance team members
  - Date and time for opening meeting with management
- Assignment of surveillance personnel by the QAM.
- At least one QA staff member is on the surveillance team.
- Pertinent information is noted to provide objective evidence of:
  - Documents reviewed
  - Personnel contacted
  - Activities observed
  - Deficiencies identified
- Deficiencies are documented on:
  - QFR/MCAR, or
  - NCR
- A Surveillance Report Status Log (T&MSS-61-30) is maintained by T&MSS QA Department and is kept current.
- Surveillance Reports are properly completed and signed by the QAM.
- Reports are submitted to the QAM ten working days from completion of the surveillance.
- Surveillance Report Data Sheet is to be used.

- Submittal of record package to the LRC within ten days of approval of the Surveillance Report by the QAM. Record package is to include:

  - Surveillance Report
  - Surveillance Report Data Sheet
  - Surveillance Report Continuation Sheets

Qualification of Audit Personnel (WI-QA-005)

- Audit personnel attain competency via one or more of the following:

  - Orientation
  - Training Program
  - On-the-job Training

- An evaluation is performed to determine the need for indoctrination/training of each audit team participant.

- The QAM attests to the qualification of the auditor or technical specialist via approval of the Audit Plan.

- LA meet requirements of 5.1.1 in addition to the requirements on TMSS/149, Record of Initial Lead Auditor Qualification, (ten credits minimum required) covering:

  - Education - 4 credits max
  - Experience - 9 credits max
  - Engineering Certificate of Competency - 2 credits max
  - Right of Management - 2 credits max

- Communication skills are attested to by the QAM on Form TMSS/149.

- Necessary training need to be obtained by the prospective LA.

- LA participate in a minimum of five QA Audits within the last three years prior to date of qualification. One of these five is to be a nuclear QA Audit within the year prior to his qualification.

- LA shall pass an examination either oral, written or practical.

- Complete and correctness of information is to be contained on the forms for LA.

- LA maintain their qualification through one or more of the following:

  - Regular and active audit process participation
  - On-gong review and study of documents relating to QA Program and Program auditing
  - Participation in training program

- QAM conducts an annual evaluation of LA to determine if LA should have their qualification extended using form TMSS/299, Annual Evaluation of Lead Auditor Qualifications.

- Re-qualification of LA is applicable. Re-qualification consists of:

  - Retraining
  - Re-examination
  - Participation as an auditor in at least one nuclear QA audit.

- Submit records and supporting documents for auditors, technical specialists and LA to Las Vegas LRC.

- Submit records to Las Vegas LRC within ten days of completion. Records include:

  - Form TMSS/149, Record of Initial Lead Auditor Qualification
  - Form TMSS/299, Annual Evaluation of Lead Auditor Qualifications

Results:

The evaluation of these procedures was based upon personnel interviews, review of the procedural requirements, and evaluation of objective evidence. All internal and external audit reports were reviewed covering the past years activities. Surveillance reports for the past year were also evaluated. Current and past LA and auditor records were examined in conjunction with their specific training.

Deficiencies noted and corrected are as follows:

- For external audit A93-02S, there was no documentation to demonstrate that audit checklists were used or that preaudit and postaudit conferences were conducted, as required by WI-QA-001. For internal audit A93-01, there was no documentation to demonstrate that preaudit and postaudit conferences were conducted.

- A Surveillance Report Data Sheet was not completed and submitted to the LRC for T&MSS surveillance SR-93-002, as required by WI-QA-002.

- There was no documentation to demonstrate that external audit report A92-06S and internal audit report A93-01 were transmitted to the Director, YMQAD, as required by WI-QA-001. There was no documentation to demonstrate that Revision 0 of the fiscal year 1993 internal audit schedule was sent to the Director, OQA, and the director, YMQAD, as required by WI-QA-001. In addition, there was no documentation to demonstrate transmittal of Revision 2 to the Director, OQA.

  Based upon the fact that the above deficiencies did not affect the quality of the work performed, QA Program Element 18.0 was determined to be satisfactory.

ATTACHMENT 3

List of Objective Evidence Reviewed During the Audit

1.0 ORGANIZATION

Procedures Evaluated During Audit:

Compliance with the following procedures was reviewed:

SAIC/T&MSS QAPD, Revision 7
TMSS/93-003, Revision 0, Organizational Description
SP 1.61, Revision 2, Dispute Resolution

Objective Evidence Examined:

SAIC/T&MSS QAPD, Revision 7; and
TMSS/93-003

T&MSS Organizational Chart dated August 13, 1993

SP 1.61

No implementation of this procedure has occurred.

2.0 QUALITY ASSURANCE PROGRAM

Procedures Evaluated During Audit:

Compliance with the following procedures was reviewed:

SP 1.2, Revision 6, Preparation, Review and Approval of T&MSS QA Policy, Organizational Description and QA Program Overview
SP 1.31, Revision 7, Initial Evaluation, Qualification, Indoctrination, and Training of T&MSS Personnel
SP 1.32, Revision 2, Management Assessment
SP 1.60, Revision 2, Readiness Review
SP 1.62, Revision 2, Peer Review
SP 1.70, Revision 0, Interactions with the Assessment Team for Item Classification
SP 1.71, Revision 1, Graded Application of QA Controls

Objective Evidence Examined:

SP 1.2

Controlled Document Issuance Authorization for TMSS/93-003, Revision 0, Organizational Description dated 7/26/93
TMSS/93-001, Revision 0, QA Policy
TMSS/93-002, Revision 0, QA Program Overview
TMSS/93-003, Revision 0, Organizational Description, dated 7/24/93
Document Review and Sign Off Sheets for TMSS/93-003, Revision 0, dated 6/15/93
QA Records Package for TMSS/93-003, Revision 0, Organizational Description dated 7/27/93
Form TMSS/098, Document Review and Sign-off, IAW SP 1.2
Form TMSS/030, Controlled Document Issuance Authorization, IAW SP 1.34

SP 1.31

Position Qualification Forms, Training Assignment Forms, Verification of Education and Experience Statements, Position Descriptions and Completion of Self-Study Assignments for the following individuals:

> C. Barron, D. Chandler, J. Conway, P. Franscoli, J. Harper, K. Johnson, G. Jones, A. Keyes, C. McEntee, H. Moomey, W. Osenbaugh, T. Pane, J. Prince, R. Rinderman, J. Ryan, K. Shenk, E. Spangler, T. Tait, A. Temple and T. Wooderson.

Privileged Records Access Logbook

SP 1.32

Training Assignment Sheets for T. Wooderson, H. Moomey, and J. Longenecker dated 9/9/93
Training Assignment Sheet for P. Check dated 9/10/93
Position Descriptions for T. Wooderson, H. Moomey, J. Longenecker and P. Check dated 6/93
Position Description Supplements for T. Wooderson, H. Moomey, J. Longenecker and P. Check dated 9/30/93
Quality Assurance Program Management Assessment Plan dated 9/17/93
Plan for the 1993 Management Assessment of the T&MSS Quality Assurance Program, Revision 1, dated 10/1/93
1993 Management Assessment notification letter dated 9/17/93
1992 Management Assessment Report dated 9/14/92

1992 T&MSS Management Assessment Corrective Action Plan dated 10/29/92
1992 T&MSS Action Tracking System Summary List of Action Items
1992 T&MSS Action Tracking System Action Item Report

SP 1.60

No implementation of this procedure has occurred.

SP 1.62

No implementation of this procedure has occurred.

SP 1.70

No implementation of this procedure has occurred.

SP 1.71

WP No. 1.2.13.4.2.T.1.D.A; Air Quality/Meteorology; Q/Non-Q
WP No. 1.2.13.4.2.T.1.D.D; Air Quality Program Management; Q/Non-Q
WP No. 1.2.13.4.5.T.1.D.A; Radiological Environmental Monitoring; Q/Non-Q

Quality Assurance Grading Reports:

DAD-92-001; Revision 0; 12/23/92; WBS 1.2.12.2.5
DAD-92-002; Revision 0; 12/23/92; WBS 1.2.12.2.3
DAD-92-004; Revision 0; 12/23/92; WBS 1.2.5.3.5

FY'93 T&MSS QA Grading Report Status Index dated January 28, 1993

Yucca Mountain Site Characterization Q-List, YMP/90-55, Revision 1, dated August 4, 1993

5.0 INSTRUCTIONS, DRAWINGS AND PROCEDURES

Procedures Evaluated During Audit:

Compliance with the following procedures was reviewed:

SP 1.1, Revisions 9 and 10, Preparation, Review, and Approval of T&MSS Procedures
SP 1.7, Revision 6, ICN 1, T&MSS Forms Management
SP 1.35, Revision 4, Preparation,Review and Approval of T&MSS Documents And Use and Control of Vendor Manuals/Vendor Technical Information (VM/VTI)

Objective Evidence Examined:

SP 1.1

Record Packages For Following Procedures:

WI-QA-001, Revision 2, ICN 1	WI-RED-015, Revision 0
WI-QA-002, Revision 1	WI-RED-006, Revision 1
WI-QA-007, Revision 1	SP 1.27, Revision 0, ICN 1
WI-QA-014, Revision 2	SP 1.31, Revision 7, ICN 1

Form TMSS/302, New Procedure Checklist.
Form TMSS/098, Document Review and Sign-off
Form TMSS/303, Procedure Revision Checklist
Form TMSS/304, Interim Change Notice Checklist

SP 1.7

WI-QA-007, Revision 1	SP 1.34, Revision 8
WI-QA-002, Revision 1	SP 1.1, Revision 10

SP 1.35

No implementation of this procedure has occurred.

6.0 DOCUMENT CONTROL

Procedures Evaluated During Audit:

Compliance with the following procedures was reviewed:

SP 1.34, Revision 7, T&MSS Document Control
WI-QA-014, Revision 2, T&MSS Quality Assurance Review Of Quality Documents

Objective Evidence Examined:

SP 1.34

Document Distribution Packages for the following procedures:

WI-RED-006, Revision 0	SP 1.32, Revision 2	WI-QA-014, Revision 2
WI-RED-015, Revision 0	SP 1.31, Revision 7	

Copy 16 of the following procedures:

SP 1.34, Revision 8 SP 1.41, Revision 3 SP 1.48, Revision 1

Copy 83 of the following procedures:

SP 1.35, Revision 5 SP 1.62, Revision 2 SP 2.2, Revision 4

Copy 43 of the following procedures:

SP 1.41, Revision 3 SP 1.69, Revision 2 SP 1.67, Revision 0
SP 1.50, Revision 2

Copy 69 of the following procedures:

SP 1.1, Revision 10 SP 1.7, Revision 7 SP 1.49, Revision 0
SP 1.3, Revision 3 SP 1.45, Revision 4

Controlled Document Distribution Reports for the following procedures:

SP 1.1, Revision 10 SP 1.7, Revision 7 SP 1.32, Revision 2
SP 1.2, Revision 6

Document cancellation Document Transmittal And Acknowledgement Receipts (DTARs) for the following procedures were extracted from the Document Control data base:

SP 2.4, Revision 6, copy no. 11
SP 2.4, Revision 6, copy no. 15
SP 2.4, Revision 6, copy no. 125
SP 2.4, Revision 6, copy no. 64

WI-QA-004, Revision 0, copy no. 8
WI-QA-004, Revision 0, copy no. 35
WI-QA-004, Revision 0, copy no. 35
WI-QA-004, Revision 0, copy no. 49
WI-QA-004, Revision 0, copy no. 477

SP 2.5, Revision 4, copy no. 206
SP 2.5, Revision 5, copy no. 8
SP 2.5, Revision 5, copy no. 146

SP 1.56, Revision 0, copy no. 1
SP 1.56, Revision 0, copy no. 5
SP 1.56, Revision 0, copy no. 6

Form TMSS/021, Reminder Notice
Form TMSS/033, Decontrol Notice

WI-QA-014

Document Review Packages for the following procedures:

SP 1.1, Revision 10	SP 1.34, Revision 8	WI-QA-001, Revision 2
SP 1.31, Revision 7		

Document Review Log for following procedures:

SP 1.31, Revision 7	SP 1.7, Revision 6	WI-RED-015, Revision 0
SP 1.34, Revision 8	SP 1.1, Revision 10	WI-RED-006, Revision 1

Form TMSS/245, QA Document Review Checklist
Form TMSS/095, Document Comments
Form TMSS/098, Document Review and Sign-off

12.0 CONTROL OF MEASURING AND TEST EQUIPMENT

Procedures Evaluated During Audit:

Compliance with the following procedures was reviewed:

WI-RED-006, Revision 0, Control of Measuring and Test Equipment
SP 1.23, Revision 5, Nonconformance Reporting
SP 1.1, Revisions 7 and 9, Preparation, Review and Approval of T&MSS Procedures
SP 1.50, Revision 2, Property Management and Administration
WI-RED-004, Revision 0, System Evaluation
WI-MET-001, Revision 2, ICN's 0, 2 & 3, Test, Checks, and Audits of Meteorological Equipment

Objective Evidence Examined:

WI-RED-006

Certificates of Calibration, and Receiving Inspection Reports (RIRs) for POs:

39-920610-94	39-930242-94	39-930328-94
39-930147-94	39-930270-94	39-930284-94
39-930308-94		

Calibration tables for the following M&TE/OE - ID Number, Description of M&TE/OE, and Calibration Due Date:

16358, Barometer, 3/31/94
20218, Barometer, 6/30/94
20584, Multimeter, 7/3/94
21118, Scopemeter, 2/28/94
03356, Thermometer, 10/31/93
05013, Pyranometer, 8/31/94
05021, Temp. Sensor, 8/31/94
05073, Vert. W/S Sensor, 8/31/94
05154, W/D Sensor, 3/31/96
00976, W/S Sensor, 4/30/97
03356, Thermometer, 10/31/93
03408, Temp. Sensor, 5/31/94
05013, Pyranometer, 8/31/94
05057, Temp. Sensor, 9/30/96
05092, W/D Sensor, 9/30/96
05132, Temp. Sensor, 7/31/94
05152, Vert. W/S Sensor, 8/31/94
05156, BP Sensor, 9/30/96
16358, Barometer, 3/31/94
16435, W/S Sensor, 2/28/97
17918, W/S Sensor, 2/28/97
20643, Mass Weights, 7/15/94
20713, W/D Sensor, 2/28/97
21115, Torque Watch
20217, Barometer, 6/30/94
04022, Grad. Cylinder, 1/31/97
21350, Multimeter, 4/30/94
16404, Temp/RH Std., 3/31/94
17926, Precip. Gauge, 2/28/94
05121, RH Sensor, 3/31/94
05120, Temp. Sensor, 8/31/94
05092, W/S Sensor, 8/31/94
00744, W/D Sensor, 8/31/96
03180, W/S Sensor, 4/30/97
03373, Barometer, 2/28/94
33410, Temp. Sensor, 5/31/94
05036, Pyranometer, 8/31/96
05073, Vert. W/S Sensor, 8/31/94
05096, RH Sensor, 12/31/93
05146, BP Sensor, 9/30/96
05155, BP Sensor, 9/30/96
05158, BP Sensor, 9/30/96
16404, Temp./RH Std., 2/28/94
17904, Precip. Gauge, 2/28/94
17919, W/S Sensor, 2/28/97
20692, W/S Sensor, 8/31/94
20931, Anemon. DRV, 9/30/93
21116, Torque Watch

Quality Affecting M&TE/OE List, dated 9/24/93
M&TE/OE Master List, dated 9/24/93

M&TE/OE History File containing: Certificates of Calibration, calibration data and documentation of performance audits and checks, NCRs and required accuracy for the following devices:

ID 00744, Wind Sensor
ID 20931, Anemon DRV
ID 21115, Torque Watch
ID 03356, Thermometer
ID 20692, Wind Speed Sensor
ID 05034, Pyranometer
ID 05322, Temp. Sensor
ID 16404, Temp./RH Std.
ID 03373, Barometer
ID 03374, Barometer
ID 20643, Weight Set
ID 03408, Temp. Sensor
ID 17904, Precip. Gauge
ID 05096, RH Sensor

M&TE and Standards Usage Log was reviewed for the following devices:

ID 20643, Mass Weights	ID 09246, Mass Weights
ID 09245, Mass Weights	ID 20931, Anemon DRV
ID 20003, Anemon DRV	ID 20585, Multimeter
ID 16404, Temp./RH Std.	ID 21115, Torque Watch
ID 21116, Torque Watch	ID 20584, Multimeter

Recall Notices (30/60 days) on interoffice memo from George Donaldson to:

Larry Croft dated 9/24/93, 8/25/93, 7/23/93, 6/25/93, and 5/25/93
C. H. Tung dated 9/24/93, 8/25/93, and 7/23/93

T&MSS QSL, 93-03, Revision 0, dated 7/6/93 was utilized to check the following suppliers:

Teledyne Geotech - qualified 8/17/92 and requalified 8/7/93
Climatronics - qualified 12/30/92 and requalification due 12/1/93
Rengard Metrology - qualified 9/3/93 and requalification due 9/3/94

Document Review and Sign-Off (TMSS/098) for WI-RED-006, dated 4/30/93, Reviewed in accordance with SP 1.1, Revision 7

"Ready to use" cabinet in Building 4226 which also contained two shelves identified as "Out of Service"

"Long Term Storage" cabinet in Building 4226

Access Logs for the "Ready to use" and "Long Term Storage" cabinets in Building 4226

NCR 93-002

Storage of calibrated item justifications, interoffice memos, signed by D. Sorensen, RAD/Environmental Field Programs Department for:

Control of Calibrated Wind Sensors, dated 4/6/93
Control of Calibrated Manometer, dated 8/6/93
Control of Calibrated Temperature Sensors, dated 7/6/93
Control of Calibrated Flow Check Instruments, dated 5/24/93

13.0 HANDLING, STORAGE, AND SHIPPING

Procedures Evaluated During Audit:

Compliance with the following procedure was reviewed:

SP 1.28, Revision 5; Revision 6, ICN 1; and Revision 7, ICN 1, Procurement of Quality Affecting Items and Services

Objective Evidence Examined:

SP 1.28

No implementation of this procedure has occurred.

16.0 CORRECTIVE ACTION

Procedures Evaluated During Audit:

Compliance with the following procedures was reviewed:

SP 1.37, Revision 6, Deficiency Reporting System
WI-QA-006, Revision 0, ICN 1, Trend Analysis

Objective Evidence Examined:

SP 1.37

QFR 93-001 through 93-015
QFR 92-028 and 92-029
Form TMSS/057
QFR Status Log

WI-QA-006

Trend Analysis Report NNA 921120.0049, dated 12/6/92
Trend Analysis Report M93-4770, dated 2/24/93
Trend Analysis Report M93-5559, dated 5/26/93
Trend Analysis Report M93-5960, dated 9/14/93
DOE CAR YM-92-074 for incorporation into Trend Report
DOE CAR YM-92-075 for incorporation into Trend Report
DOE CAR YM-92-076 for incorporation into Trend Report and also for effectiveness of corrective action

17.0 QUALITY ASSURANCE RECORDS

Procedures Evaluated During Audit:

Compliance with the following procedure was reviewed:

SP 1.36, Revision 10, ICN 1, T&MSS Records Management

Objective Evidence Examined:

SP 1.36

The following Document Transmittals were verified:

Fourth Quarter 1992 Trend Analysis Report dated 9/30/93
Training Records dated 9/24/93
Training Records of Audit Participation dated 9/28/93
GET Training 1.5 Annual Refresher dated 9/23/93

QRP 1.2.12 (SP 1.30, Revision 4, cancellation)
QRP 1.2.13.4.2 (WI-RED-006, Revision 0, initial issue)
QRP 1.2.5.4 (SP 2.5, Revision 4, cancellation)
QRP 1.2.5.4 (SP 2.4, Revision 6, cancellation)

18.0 AUDITS

Procedures Evaluated During Audit:

Compliance with the following procedures was reviewed:

WI-QA-001, Revision 2, ICN 1, QA Audits
WI-QA-002, Revision 0, ICN 1, QA Surveillance
WI-QA-005, Revision 0, ICN 1, Qualification of Audit Personnel

Objective Evidence Examined:

WI-QA-001

Internal Audit Schedule M93-4191, Revision 2, dated 8/2/93
Internal Audit Schedule M92-2887, dated 11/4/92
ExternalAudit Schedule L93-5993
External Audit Schedule L92-3236

Quality Suppliers List M93-5610, dated 7/20/93
Quality Activities List

Internal Audit Reports:

A93-01	A93-03	A93-05
A93-02	A93-04	

External Audit Reports:

A92-05S	A93-02S	A93-04S
A92-06S	A93-03S	A93-05S
A93-01S		

Form TMSS/054, Yearly Internal Audit Schedule Checklist
Form TMSS/145, QA Audit Report Checklist
Form TMSS/146, QA Audit Report
Form TMSS/147, QA Audit Plan

WI-QA-002

Surveillance Reports:

SR 92-015	SR 93-002	SR 93-004
SR 92-016	SR 93-003	SR 93-005
SR 93-001		

Surveillance Report Status Log (T&MSS-61-30)

WI-QA-005

Lead Auditor Qualifications for R. R. Rinderman, J. N. Estella, and J. Malone
Auditor Qualifications for J. Ryan, A. Temple, J. Harper, and J. Pelletier
Form TMSS/149, Record of Initial Lead Auditor Qualification
Form TMSS/299, Annual Evaluation of Lead Auditor Qualifications