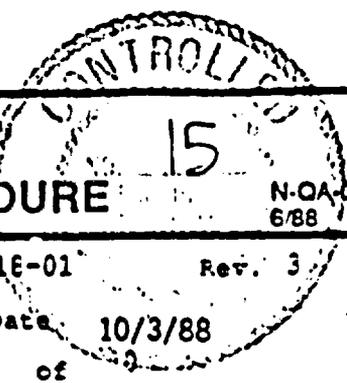




WASTE MANAGEMENT PROJECT OFFICE

QUALITY MANAGEMENT PROCEDURE



N-QA-015
6/88

NNA-880928-0013

Title

AUDIT SYSTEM FOR THE WASTE
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1.0 PURPOSE AND SCOPE

The purpose of this procedure is to establish the responsibilities and methods for planning, conducting, and documenting a formal, comprehensive Waste Management Project Office (WMPO) Quality Assurance (QA) audit program in support of the Nevada Nuclear Waste Storage Investigations (NNWSI) Project.

2.0 APPLICABILITY

This procedure applies to all internal, external, and supplemental audits of quality related activities conducted by the WMPO.

3.0 DEFINITIONS

3.1 AUDIT

An audit is a planned and documented activity performed to determine by investigation, examination, or evaluation of objective evidence the adequacy of and compliance with established procedures, codes, standards, instructions, drawings, and other applicable requirements and the effectiveness of implementation. An audit should not be confused with surveillance or inspection activities performed for the purpose of process control or product acceptance.

3.2 AUDIT FINDING

The audit finding is any deficiency in characteristics, documentation, or procedure that renders the quality of an item or activity unacceptable or indeterminate. Audit findings are documented as deficiencies on Standard Deficiency Reports (SDRs) in accordance with QMP-16-03.

3.3 AUDIT TEAM

An audit team shall consist of one or more auditors, and shall be led by an individual qualified as a Lead Auditor (LA) who organizes and directs the audit, coordinates the preparation and issuance of the audit report, and evaluates the responses. The team may include technical specialists and auditor candidates. Depending on the complexity and technical depth of the

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APPROVED BY

Project Manager, T&ES
M. J. [Signature]
Date 9/27/88

WMPO Project Quality Manager
Ann Blandford
Date 9/27/88

WMPO Project Manager
[Signature]
Date 9/27/88



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audit, the Audit Team may be directed by an Audit Team Leader (ATL) or an LA. When deemed appropriate by the Audits Manager, the Audit Team is comprised of a "QA Programmatic" subteam and a "Technical" subteam headed by an LA and a Lead Technical Specialist, respectively. Both subteam leaders report to the ATL. Under standard conditions where technical depth of the audit is minimal, the Audit Team is directed by an LA with assistance from technical specialists as part of the Audit Team.

3.4 AUDIT TEAM LEADER

A certified LA who performs the overall planning, conduct, and reporting of audits having two subteams when justified by the complexity or technical depth of the audit. The ATL directs activities of the LA and the Lead Technical Specialist on the audit team.

3.5 AUDITOR

An individual who is qualified in accordance with QMP-02-02 to perform an audit under the direction of an LA. The auditor performs an audit utilizing approved checklists, and initiates observations, recommendations, and SDRs as required.

3.6 CONDITION ADVERSE TO QUALITY

An all inclusive term "condition adverse to quality" used in reference to any of the following: (1) failures, (2) malfunctions, (3) deficiencies, (4) defective items, and (5) nonconformances. A significant condition adverse to quality is one which, if uncorrected, could have a serious effect on safety or operability.

3.7 EXTERNAL AUDIT

An external audit is an audit of those portions of another NNWSI Project Participant's quality assurance program that are neither under the direct management control nor within the organizational structure of the auditing organization.

3.8 INTERNAL AUDIT

An internal audit is an audit of those portions of an organization's quality assurance program that are neither under the direct control nor within the organizational structure of the auditing organization.



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3.9 LEAD AUDITOR

The LA is an individual who is certified (in accordance with QMP-02-02) to plan and perform an audit, to report audit findings, and to evaluate proposed corrective actions. The LA is responsible for the planning, preparation, and conduct of the QA programmatic phase of the audit, including directing the activities of assigned auditors.

3.10 LEAD TECHNICAL SPECIALIST

An individual who assists the ATL in the planning, preparation, and conduct of the technical phase of the audit, including directing the activities of technical specialists during the audit.

3.11 OBJECTIVE EVIDENCE

Any documented statement of fact; other information; or record, either quantitative or qualitative; that pertains to the quality of an item, activity, or service and that is based on verifiable observations, measurements, or tests.

3.12 OBSERVATION

The recognition of a weakness in the QA program that, if left unaddressed, could result in a condition adverse to quality.

3.13 OBSERVER

An individual who is not an active participant, but may be involved with the audit to observe how the audit is conducted and/or to become familiar with the auditee's organization and activities.

3.14 ORGANIZATION

For the purpose of this procedure, organization refers to the WMPO, NNWSI Project Participating organizations, and Nevada Test Site (NTS) Support Contractors.

3.15 STANDARD DEFICIENCY REPORT

A Standard Deficiency Report (SDR) is a form used to document deficient, nonhardware related conditions adverse to quality, document remedial/investigative/corrective actions, document evaluation of these actions, and document verification of satisfactory completion of these actions.



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3.16 SUPPLEMENTAL AUDITS

Supplemental audits are audits which are conducted in addition to regularly scheduled audits. They cover specific subjects which are selected by and deemed necessary by the WMPO Project Quality Manager, or in accordance with requests by a Participating Organization or NTS Support Contractor.

3.17 SURVEILLANCE

The act of monitoring or observing to verify whether an item or activity conforms to specified requirements.

3.18 TECHNICAL SPECIALIST

An individual having technical expertise in the audit subject who assists with the audit performance or performs the technical phase of an audit in accordance with approved technical checklists.

4.0 RESPONSIBILITIES

4.1 WMPO PROJECT QUALITY MANAGER

The WMPO Project Quality Manager (PQM) is responsible for the maintenance of the WMPO QA Audit System which evaluates the implementation of Quality Assurance Program Plans of organizations providing items or services to the NNWSI Project. It is the responsibility of the WMPO PQM to evaluate and approve audit plans and reports prior to issuance and to ensure that conditions adverse to quality are identified and reported on SDRs in accordance with QMP-16-03, Standard Deficiency Reporting System. The PQM assigns severity levels to SDRs resulting from audits.

4.2 NNWSI PROJECT QUALITY ASSURANCE DEPARTMENT MANAGER

The NNWSI Project QA Department Manager, under the direction of the WMPO PQM, is responsible for the implementation of the WMPO Audit System.

4.3 QA VERIFICATION MANAGER

The QA Verification Manager is responsible for directing the planning, scheduling, and performance of audits and surveillances.



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4.4 AUDITS MANAGER

The Audits Manager is responsible for developing and maintaining the WMPO audit schedule, directing the conduct of audits per the audit schedule, selecting the Lead Auditor or Audit Team Leader for each scheduled audit, reviewing and approving the audit plan and the audit report, and for directing the evaluation of remedial and corrective action responses to audit findings.

4.5 AUDIT TEAM LEADER

The Audit Team Leader, when appointed to lead an audit, is responsible for developing the audit plan, selecting and indoctrinating the audit team, conducting the audit, and preparing the audit report.

4.6 LEAD AUDITOR

The Lead Auditor, when independently leading an audit team, has the same responsibilities outlined for the ATL. When leading a subteam under the direction of an ATL, the Lead Auditor is responsible for assisting the ATL in duties outlined for the ATL. In both cases, the Lead Auditor is responsible for reviewing and concurring with resulting SDRs, and evaluating auditee responses to the deficiencies found during the audit.

4.7 AUDIT TEAM MEMBERS

The audit team members are responsible for assisting the Audit Team Leader or Lead Auditor in the planning, preparation, and conduct of the audit and in the reporting of audit results.

4.8 TECHNICAL SPECIALIST

The Technical Specialist is responsible for providing technical assistance to the audit team members when technical expertise is required to audit specific areas.

4.9 LEAD TECHNICAL SPECIALIST

The Lead Technical Specialist is responsible for the planning, preparation, and conduct of the technical phase of an audit, including direction of technical specialists during the audit.



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5.0 PROCEDURE

5.1 AUDIT SCHEDULING

5.1.1 The WMPO PQM shall establish a system of planned periodic audits to provide an objective evaluation of the quality related practices, procedures, instructions, activities, and items including the review of documents and records to ensure that the NNWSI Project QA program is effective and properly implemented. The Audits Manager develops and implements the audit schedule in support of the WMPO PQM. Sources of information available for planning purposes include:

- a. Weekly and monthly reports.
- b. Approved Scientific Investigation Plans.
- c. Quality Assurance Level Assignment Sheets.
- d. Project Participants' audit schedules.

5.1.2 Internal and external QA audits are scheduled to provide coverage and coordination with ongoing QA program and technical activities. Audits are scheduled at a frequency commensurate with the status and importance of the activity, and are conducted at intervals consistent with the schedule for accomplishing the activity. The audits shall be initiated early enough in the life of the activity to assure effective assurance of quality.

5.1.3 The WMPO shall conduct internal audits on an annual basis, as a minimum, to evaluate compliance with the NNWSI Project Quality Assurance Plan, the WMPO Quality Assurance Program Plan (QAPP) and the respective implementing procedures; and to determine the effectiveness of implementation.

5.1.4 The WMPO shall conduct external audits of Project Participant Organizations and NTS Support Contractors on an annual basis, as a minimum, to evaluate compliance with the applicable elements of the NNWSI Project Quality Assurance Plan and shall determine the adequacy and effectiveness of the respective QAPPs and implementing procedures. These audits eliminate the need for Participating Organizations and NTS Support Contractors to conduct audits of each other.

5.1.4.1 Audits of all participating organizations and NTS Support Contractors' activities shall be performed in accordance with this procedure (also see Figure 6) at least annually or once during the life of the activity, whichever is the shorter period. The following are exceptions to this requirement: (1) if the activity is less than 4 months in duration, an audit is not required to be performed unless an audit is necessary due to the complexity or importance of the activity being performed; and (2) audits need not be per-



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formed when the participating organizations and NTS Support Contractors are in a stop work situation as defined in QMP-01-02 or are not performing quality related activities. The justification for not performing these audits must be documented and approved by the QA Verification Manager.

5.1.4.2 Qualified auditors of the Participating Organizations or NTS Support Contractors, or both, may be invited to participate in a WMPO audit when the audited organization's activities are of mutual interest.

5.1.5 The Audits Manager shall develop the WMPO Audit Schedule for internal and external audits planned for each fiscal year. The audit schedule and changes thereto shall be forwarded to the WMPO PQM through the QA Verification Manager. The audit schedule and subsequent changes shall be approved by the WMPO PQM and issued by WMPO as an annual planning document. The schedule shall be evaluated periodically and revised as necessary to ensure coverage is maintained current. Periodic evaluations of the schedule should include an assessment of the effectiveness of the program based on: (1) previous audit results and corrective actions; (2) nonconformance reports; and (3) information received from external sources such as the American Society of Mechanical Engineers (ASME), the Nuclear Regulatory Commission (NRC), the Headquarters Office of Civilian Radioactive Waste Management (OCRWM), etc. The schedule should include the following as a minimum:

- a. Audit number.
- b. Organizations/activities to be audited.
- c. Scheduled audit date (month/year).
- d. Requirements to which activities will be audited.

5.1.5.1 Audit schedules received from participants shall be considered in the WMPO audit scheduling process.

5.1.5.2 The Audits Manager will review the annual audit schedules provided to WMPO by the Project participants and select the audits in which WMPO will participate.

5.2 AUDIT PREPARATION AND PLANNING

5.2.1 The scheduled audits shall be performed in accordance with this procedure, with checklists prepared and used by appropriately trained personnel who are not directly responsible for performing the activities being audited.

5.2.1.1 Regularly scheduled audits may be augmented by conducting supplemental audits in accordance with Section 5.11 of this procedure, or surveillances in accordance with QMP-15-02.



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5.2.2 The audit team shall be identified prior to the beginning of each audit. The Audits Manager shall select the ATL or LA, as appropriate, for each scheduled audit. The ATL/LA shall identify the audit team, including the technical specialists who will participate in the audit. The composition of the team shall be included in the audit plan. Audit team members selected to participate in audits for technical consideration purposes shall have appropriate technical expertise or experience in the work being audited. Multi-disciplinary audit teams shall be employed when activities to be audited involve more than a single technical area. For internal audits, personnel having direct responsibility for audited activities shall not be involved in the selection of the audit team nor shall they be part of the team. The audit team will be approved by the WMPO PQM. The ATL/LA may be selected from an organization outside of the NNWSI Project (i.e., OCRWM, Independent consultants etc.). Audit personnel shall have sufficient authority and organizational freedom to make the audit process meaningful and effective. The ATL/LA shall ensure that the audit team is prepared prior to initiation of the audit.

5.2.3 The ATL/LA is responsible for developing and documenting the Audit Plan (Figure 1 provides an acceptable format) for the audit to be performed. The scope of the audit shall be established by considering:

1. Results of previous audit.
2. The nature and frequency of identified deficiencies.
3. Any significant changes in personnel, organization, or in the QA program.

5.2.3.1 The audit plan is a statement of intent and shall identify the audit number, purpose and scope, the schedule, the organization to be audited, the requirements to be audited, the organizational elements or activities to be audited, procedures and documents to be used, and the audit team members.

5.2.3.2 The audit plan need not be revised to incorporate changes. The final audit scope, team members, observers, and performance will be documented by the audit report.

5.2.3.3 The Audit Plan is reviewed and approved by the Audits Manager and the WMPO PQM, prior to issuance. Prior to the audit, the WMPO PQM shall issue a notification letter with the Audit Plan enclosed to the organization scheduled to be audited.

5.2.4 The audit team assists the ATL/LA in developing an audit checklist, and a technical checklist when required. The checklists are prepared on forms equivalent to Figure 2. Checklists consist of a series of questions or statements to be verified by audit team members during the audit.



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5.2.4.1 The checklist questions or statements shall be based upon a review of requirements, procedures, previous audit and surveillance reports, and other technical documents applicable to the audited activity.

5.2.4.2 When a technical checklist is warranted due to the technical nature of the audited activity, the technical specialists are responsible for developing questions or statements based on objectives listed in Figure 5.

5.2.5 The ATL/LA is responsible for ensuring that audit team members are cognizant of pertinent practices, policies, procedures, standards, instructions, codes, regulatory requirements, commitments, and prior audit/surveillance reports which are applicable. Audit team orientation may be accomplished by methods such as providing audit team members with advance copies of checklists; individual communication among respective audit team members; and/or the conduct of Pre-Audit team meetings. If Pre-Audit team meetings are conducted for training purposes, attendance shall be documented on a Training Attendance Record form in accordance with QMP-02-01.

5.3 PRE-AUDIT CONFERENCE

5.3.1 The ATL/LA conducts a Pre-Audit Conference which is attended by appropriate staff members of the audited organization. Attendance at this conference shall be documented; each attendee must sign the Meeting Participant List (Figure 3 provides an acceptable form). The purpose of this Pre-Audit Conference is to confirm the audit scope, discuss the audit plan, identify the auditors and counterparts, discuss audit sequence, establish a tentative time for a Post-Audit Conference and establish channels of communications.

5.4 CONDUCTING THE AUDIT

5.4.1 Upon completion of the Pre-Audit Conference, the audit team commences investigative activities and the interview portion of the audit, using the prepared QA programmatic checklist and the technical checklist as applicable. Two audit team members should be assigned to investigate each criterion on the checklist. Objective evidence shall be examined for compliance with checklist requirements, to the depth necessary to determine if the elements are adequate for effective control and to determine whether or not they are being implemented effectively. The results are documented on the checklist. Figure 2 provides instructions for checklist completion.

5.4.1.1 The checklist statements/questions are intended to be used as guidelines and should not restrict the audit investigation. With concurrence by the ATL/LA, the checklists may be expanded by audit team members during the



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course of the audit to ensure thoroughness of the audit process. Elements selected for audit shall be evaluated against specified requirements, including a review of corrective actions taken on program deficiencies identified during previous WMPO audits.

5.4.1.2 The selected elements of the quality assurance and technical program (as applicable) shall be audited to the extent necessary to determine whether or not they are being implemented effectively. Checklist items must be annotated with comments documenting either compliance or noncompliance as they are examined. It is mandatory that every entry listed in the checklist be completed during the audit. If the item does not apply or is not audited, "N/A" (not applicable) shall be entered in the appropriate space and an explanation as to why must be entered on the checklist. Reference to specific deficiencies shall be noted on the checklists by documenting the SDR number adjacent to the checklist item.

5.4.1.3 During the audit, observers may submit inquiries regarding the auditee to the auditor on a "WMPO Audit Observer Inquiry" sheet or equivalent (Figure 7 provides an acceptable form). The observer shall document the response to the inquiry based on auditee input and shall acknowledge receipt of the response. If deemed appropriate by the LA, the question may be added to the checklist.

5.4.2 Audit Team Meetings shall be held at the end of each auditing day. Meeting attendance is documented on a Meeting Participant List. Deficiencies found shall be reported to the ATL/LA and discussed sufficiently to determine their validity and severity; and to plan additional investigations as necessary.

5.4.3 Subsequent to the Audit Team Meetings, the ATL/LA shall hold periodic conferences with appropriate management personnel of the audited organization to apprise the auditees of deficiencies identified. The conferences provide management opportunity to initiate corrective action or to provide additional information/documentation to resolve the apparent deficiency.

5.4.4 An auditor who discovers or observes a condition which requires prompt corrective action to avoid personnel injury or damage to equipment shall immediately notify the responsible management personnel.

5.5 EVALUATION AND DOCUMENTATION OF AUDIT RESULTS

5.5.1 Audit team members will provide the completed audit checklist to the LA prior to the Post-Audit Conference, indicating their findings in the audit areas for which they were responsible.



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5.5.2 For the purpose of the Post-Audit Conference, the deficiencies are prepared as SDR rough drafts by the LA, omitting assignment of Severity Levels. Descriptions of the SDRs are orally reported to the audited organization at the Post-Audit Conference with the understanding that the SDRs may be changed prior to final issuance. Observations are documented on "Observation" forms in accordance with QMP-16-03.

5.6 POST-AUDIT CONFERENCE

5.6.1 The ATL/LA conducts the Post-Audit Conference. This is a debriefing at the conclusion of the audit consisting of a presentation to the audit team and the audited organization's management representatives having responsibilities in the areas audited. A summary of the audit results is prepared and presented to the audited organization. Each deficiency, observation, and recommendation is described to ensure that the "discovered" state of the QA Program is clearly understood. Attendance at the Post-Audit conference shall be documented; each attendee shall sign the Meeting Participant List (Figure 3 provides an acceptable form).

5.7 STANDARD DEFICIENCY REPORTS

5.7.1 SDRs are prepared and issued independently of the audit report. Severity Levels are assigned by the PQM subsequent to the audit. The PQM approves the SDRs and sends them directly to the audited organization by transmittal letter. The audited organization's response due date is 20 working days from the transmittal letter date, as required by QMP-16-03.

5.8 AUDIT REPORTS

5.8.1 The LA, with the support of the audit team, prepares a formal audit report. Figure 4 provides an acceptable format to be used. The audit report shall be based on the completed checklists, discussions with the representatives of the audited organizations, and the summary of the audit team members. The report describes the audit scope, provides a synopsis of the SDRs (in sufficient detail to enable corrective action to be taken by the audited organization) summarizes the audit results (including a statement of the effectiveness of the QA program), and identifies the auditors and the persons contacted during the audit. Any observations and recommendations made by the audit team will also be included in the audit report. Copies of the SDRs are attached to the audit report for information purposes.

5.8.2 Observations identified during the audit are submitted with the audit report and a response is required within 20 working days from the date of the transmittal letter.



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5.8.2.1 The LA will evaluate responses to the observations for acceptability and will advise the audited organization accordingly.

5.8.2.2 If a response is not received by the required date, a follow-up letter will be prepared by the LA for the WMPO PQM's signature and issuance.

5.8.3 Recommendations are presented in the audit report, but do not require a response.

5.8.4 The audit report is signed by the LA, reviewed and concurred with by the Audits Manager, and approved by the WMPO PQM. The audit report should be issued within 25 working days after the Post-Audit conference.

5.8.5 The LA will draft a cover letter for the WMPO PQM, to be forwarded to the audited organization with the audit report. This letter will state that the subject audit is considered completed as of the date of the letter, but any open SDRs will continue to be tracked until each one has been closed to the satisfaction of the LA and the WMPO PQM. The audited organization prepares formal responses to the SDRs and Observations in accordance with time schedules established in QMP-16-03.

5.8.5.1 As a minimum, copies are transmitted by cover letter to the management of the audited organizations, QA Records Center, HQ-OCRWM, QAD/NV, and the Management Evaluation Division/NV. Other WMPO Branches and organizations may receive copies as deemed necessary.

5.9 PROCESSING OF STANDARD DEFICIENCY REPORTS AND OBSERVATIONS

5.9.1 SDRs and Observations resulting from the audit shall be tracked to closure in accordance with QMP-16-03, and trended in accordance with QMP-16-02.

5.10 AUDIT RECORDS

5.10.1 The LA on each audit is responsible for establishing an audit record file.

5.10.2 As a minimum the records compiled by the LA shall include the audit plan, audit report, meeting attendance lists, completed checklists, and copies of issued SDRs and Observations. In addition, the file will include all copies of related correspondence necessary to provide a record of audit completion.

5.10.3 All QA records will be processed in accordance with QMP-17-01, QA Records.



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5.10.4 Correspondence generated subsequent to audit completion and records turnover by the LA shall be filed with SDR records.

5.11 SUPPLEMENTAL AUDITS

5.11.1 Regularly scheduled audits may be augmented by additional audits of specific subjects when deemed necessary by the WMPO PQM, or when requested by a Participating Organization or NTS Support Contractor. Supplemental audits may be performed in the following cases:

5.11.1.1 When significant changes are made in functional areas of a quality assurance program such as reorganization or procedure revisions or significant changes in work assignment.

5.11.1.2 When it is suspected that the quality of an item or service is in jeopardy because of deficiencies in the quality assurance program.

5.11.1.3 When assessment of the program effectiveness is considered desirable.

5.11.1.4 To determine the capability of an organizations quality assurance program before awarding a contract or purchase order.

5.11.1.5 It is determined that there appears to be a declining trend in the performance of quality related work, as indicated by QMP-16-02.

5.11.1.6 After the award of a contract, when sufficient time has elapsed for implementing the QA program to determine is effectiveness.

5.11.1.7 When it is necessary to verify implementation of required corrective actions of a complex or diversified nature.

5.11.2 The Audits Manager will designate a LA who will select an audit team to conduct a supplemental audit. The supplemental audit shall be conducted in accordance with the requirements of this procedure.

5.12 REPORTS OF AUDIT STATUS

A report on the status of audits is included as part of the monthly project report.



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5.13 HEADQUARTERS OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT (HQ-OCRWM)
PARTICIPATION IN WMPO AUDITS

5.13.1 HQ-OCRWM participates in selected QA audits of the contractors which are conducted by WMPO for the NNWSI Project. The OCRWM Quality Assurance Manager provides certification/qualification records for the OCRWM (auditor) representative(s) assigned to participate. The certification/qualification records will be reviewed by the LA to verify current status and proper authorization. The record will be placed in the appropriate file. The LA will provide HQ-OCRWM with a copy of the audit plan, checklists, and instructions for the selected audits.

5.14 FOLLOW-UP AND CLOSE OUT OF AUDIT FINDINGS FROM PREVIOUS WMPO AUDITS

5.14.1 Audit findings from previous WMPO audits remaining open as of the effective date of this procedure will be evaluated, verified and closed according to the following steps.

5.14.1.1 Audit Finding Sheets (AFS) which were issued for deficiencies identified during an audit, require a written response from the audited organization within 35 days from the issuance date. The audited organization shall respond to the AFS with the cause of the finding, the proposed corrective action, the corresponding implementation date, and measures to prevent recurrence.

5.14.1.2 The WMPO PQM, with assistance from the LA is responsible for review and approval of the proposed corrective action and implementation date that is submitted for each AFS by the audited organization.

5.14.1.3 If an AFS needs to be revised due to rejection of a response or an unsatisfactory verification, it will be "rolled-over" to an SDR in accordance with QMP-16-03.

5.14.1.4 After notification by the audited organization that approved corrective action has been implemented, a Surveillance person is responsible for verifying that the action has been taken and evaluating its effectiveness to prevent recurrence.

5.14.1.5 Following verification and approval of the AFS, the AFS closeout date shall be entered in the AFS log and the completed AFS shall be filed with the appropriate audit report.



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5.13 HEADQUARTERS OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT (HQ-OCRWM) PARTICIPATION IN WMPO AUDITS

5.13.1 HQ-OCRWM participates in selected QA audits of the contractors which are conducted by WMPO for the NNWSI Project. The OCRWM Quality Assurance Manager provides certification/qualification records for the OCRWM (auditor) representative(s) assigned to participate. The certification/qualification records will be reviewed by the LA to verify current status and proper authorization. The record will be placed in the appropriate file. The LA will provide HQ-OCRWM with a copy of the audit plan, checklists, and instructions for the selected audits.

5.14 FOLLOW-UP AND CLOSE OUT OF AUDIT FINDINGS FROM PREVIOUS WMPO AUDITS

5.14.1 Audit findings from previous WMPO audits remaining open as of the effective date of this procedure will be evaluated, verified and closed according to the following steps.

5.14.1.1 Audit Finding Sheets (AFS) which were issued for deficiencies identified during an audit, require a written response from the audited organization within 35 days from the issuance date. The audited organization shall respond to the AFS with the cause of the finding, the proposed corrective action, the corresponding implementation date, and measures to prevent recurrence.

5.14.1.2 The WMPO PQM, with assistance from the LA is responsible for review and approval of the proposed corrective action and implementation date that is submitted for each AFS by the audited organization.

5.14.1.3 If an AFS needs to be revised due to rejection of a response or an unsatisfactory verification, it will be "rolled-over" to an SDR in accordance with QMP-16-03.

5.14.1.4 After notification by the audited organization that approved corrective action has been implemented, a Surveillance person is responsible for verifying that the action has been taken and evaluating its effectiveness to prevent recurrence.

5.14.1.5 Following verification and approval of the AFS, the AFS closeout date shall be entered in the AFS log and the completed AFS shall be filed with the appropriate audit report.



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5.14.1.6 When all the AFSSs associated with an audit are closed, the LA shall document that the audit is closed on the Audit Log.

5.14.1.7 Audit records associated with previous WMPO audits include audit plans and reports, written replies, and completed audit finding sheets. A LA shall assure that the audit records are complete and accurate. These records shall be processed in accordance with QMP-17-01, QA Records.

6.0 REFERENCES

- 6.1 NNWSI/86-9, NNWSI Project QA Plan
- 6.2 WMPO/86-1, WMPO QAPP
- 6.3 QMP-01-02, Stop Work
- 6.4 QMP-02-01, Indoctrination and Training
- 6.5 QMP-02-02, Qualification and Certification of Auditors
- 6.6 QMP-16-02, Trend Analysis
- 6.7 QMP-16-03, Standard Deficiency Reporting System
- 6.8 QMP-17-01, QA Records
- 6.9 QMP-18-02, Surveillances

7.0 FIGURES

- Figure 1 WMPO QA Audit Plan
- Figure 2 Audit Checklist
- Figure 3 Meeting Participant List
- Figure 4 WMPO Quality Assurance Audit Report
- Figure 5 Objectives for Technical Phase of Quality Assurance Audits
- Figure 6 Audit System Flowchart
- Figure 7 WMPO Audit Observer Training



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8.0 QA RECORDS

QA Audits Plans

QA Audit Reports

Completed Checklists

Meeting Attendance Lists

Standard Deficiency Reports

Observations

Related Correspondence



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Audit No. _____

Date _____

WMPO QUALITY ASSURANCE AUDIT PLAN

1.0 PURPOSE/SCOPE

2.0 ORGANIZATION TO BE AUDITED

3.0 AUDIT SCHEDULE

The schedule for this audit is tentatively established as follows. This time frame may be expanded as audit programs dictate.

4.0 REQUIREMENTS TO BE AUDITED AND APPLICABLE REFERENCES

The requirements being audited are stated in the following documents.

5.0 ACTIVITIES TO BE AUDITED

The activities to be investigated during this audit include:

6.0 AUDIT TEAM MEMBERS

7.0 AUDIT CHECKLISTS, ANNEXES, AND ATTACHMENTS

Prepared by _____
Lead Auditor/Lead Technical Specialist

Approved by _____
Audit Manager

Approved by _____
WMPO PQM

Figure 1



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INSTRUCTIONS FOR COMPLETING THE WMPD AUDIT CHECKLIST

The checklist number consists of the applicable audit number followed by a (-1) for programmatic or (-2) for technical requirements. For example, 87-15-1 for a programmatic checklist on audit #87-15.

Enter the checklist number at the top of the page. Complete the form as indicated below:

1. Organization - Name of organization being audited.
2. Page - Page number of checklist.
3. Audit Item No. - Sequential item numbers assigned to each checklist entry.
4. Quality Requirement References - Enter name or number of the auditee's quality or project document, page number, and applicable paragraph of the requirement to be audited.
5. Quality Requirement/Guideline - Enter the statement or question to be investigated pertaining to the requirement reference in Block 4.
6. Results - Enter "S", "X", or "N/A".
 - a. Enter "S" if the specified requirements are being met satisfactorily.
 - b. Enter "X" if specified requirements have not been met or if some deficiency has been discovered.
 - c. Enter "N/A" if the stated requirement is not applicable (N/A) and therefore has not been audited.
7. Summary of Investigation - Summarize investigation of requirements in a brief statement, giving justification for the "results" stated in Block 6. Reference SDR number applicable to "X" entries for each item number. Provide justification or reasons why certain items were marked "N/A" and were not audited. Items which were marked "S" as being satisfactory, but which have had observations written against them will be annotated with the observation number in Block 7.
8. Person Contacted - List name(s) of individual(s) providing pertinent information to the auditor for each audit item.
9. Auditor Signature - Signature(s) of auditor or audit team members who completed the checklist page.
10. Date - Date of audit.

Figure 2 (cont'd)



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Audit Report _____
Date _____

1.0 INTRODUCTION

This report contains the results of a quality Assurance Audit of:
(Name and Location)

The audit was conducted in accordance with the requirements of
the WMPPO Quality Assurance Program Plan.

2.0 AUDIT SCOPE

3.0 AUDIT TEAM PERSONNEL

This audit team consisted of the following members:

Audit Team Leader _____

Lead Auditor _____

QA Auditors _____

Lead Technical Specialist _____

Technical Specialists _____

4.0 SUMMARY OF AUDIT RESULTS

_____ deficiencies and _____ observations
were identified during the course of the audit. These are delineated
in section 6.0.

Figure 4 (cont'd)



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Audit Report _____
Date _____

4.0 SUMMARY OF AUDIT RESULTS (CONTINUED)

Within the scope of this audit, _____ audited areas were found to be generally in compliance. They were:

The effectiveness of the quality assurance elements that were audited is summarized as follows:

5.0 AUDIT MEETINGS

5.1 PRE-AUDIT CONFERENCE

An opening meeting was held to outline the purpose and scope of the audit and to establish further audit activities and a tentative time for the closing meeting.

Date _____ Time _____

Attendees and Titles:

5.2 PERSONS CONTACTED DURING THE AUDIT

Figure 4 (cont'd)



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Date _____

5.3 POST-AUDIT CONFERENCE

A closing meeting was conducted to report audit results and resolve any possible misunderstandings prior to completion of the final audit report.

Date _____ Time _____

Attendees and Title:

6.0 SYNOPSIS OF SDRs AND OBSERVATIONS

7.0 RECOMMENDED ACTION

A written response is required for each Standard Deficiency Report and observation delineated in Part 6 above. Copies of these documents have been forwarded by mail to your Technical Project Officer. Response is due within 20 working days of the date of the transmittal letter. Upon verified completion of all remedial and corrective action, the SDR will be closed and the Project participant will be notified by letter of the SDR closure.

Figure 4 (cont'd)



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OBJECTIVES FOR THE TECHNICAL PHASE OF THE QA AUDIT

In order to provide a unified approach to the conduct of the technical phase of a Quality Assurance audit the following questions are provided. The intention is to have these questions serve as the basis for the questions developed in the technical checklist (XX-2).

- c Were there sufficient technical procedures for the activity under review?
- c Were the procedures in place technically adequate for the intended application?
- c Did the prime or critical methodologies employed consider existing/accepted approaches and technologies?
- c Where controversial methodologies were employed was an adequate peer review performed?
- c Was the background/credentials of those individuals engaged in the task/activity appropriate to the desired/intended outcome of the activity?
- c Was the level of effort/rigor employed commensurate with the stated objectives of the task/activity?
- c Where concerns exist as to the efficacy of an activity is a further technical review indicated?
- c Where the interim analysis or interpretation of data supports reported results, is the analysis/interpretation appropriate for the proposed activity/task?
- c Were the design calculations, design methods, and design analyses employed for an activity appropriate to the maturity of the design?



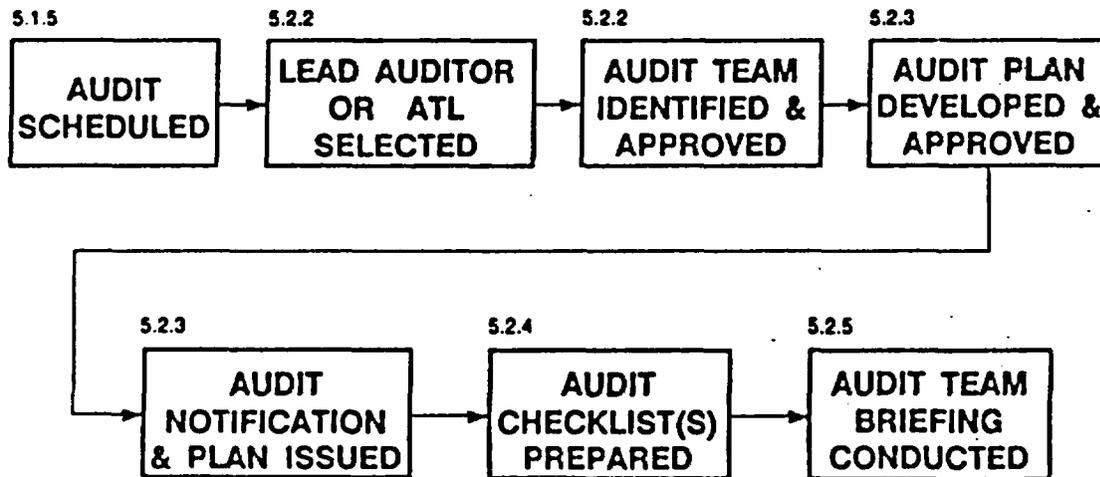
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AUDIT PREPARATION



WMPOASJC PUB. 7/88 P-4

Figure 6. Audit System Flowchart

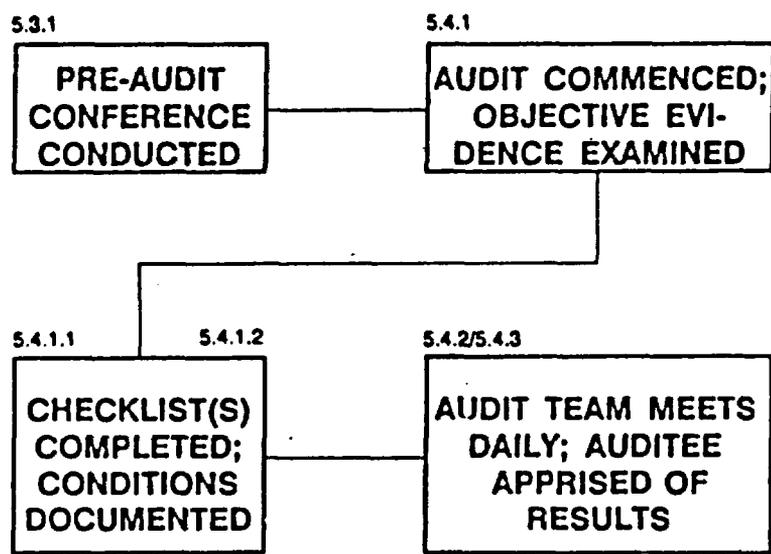


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AUDIT PERFORMANCE



WMPOAS,JC PUB 7/8/88

Figure 6. Audit System Flowchart (cont'd)



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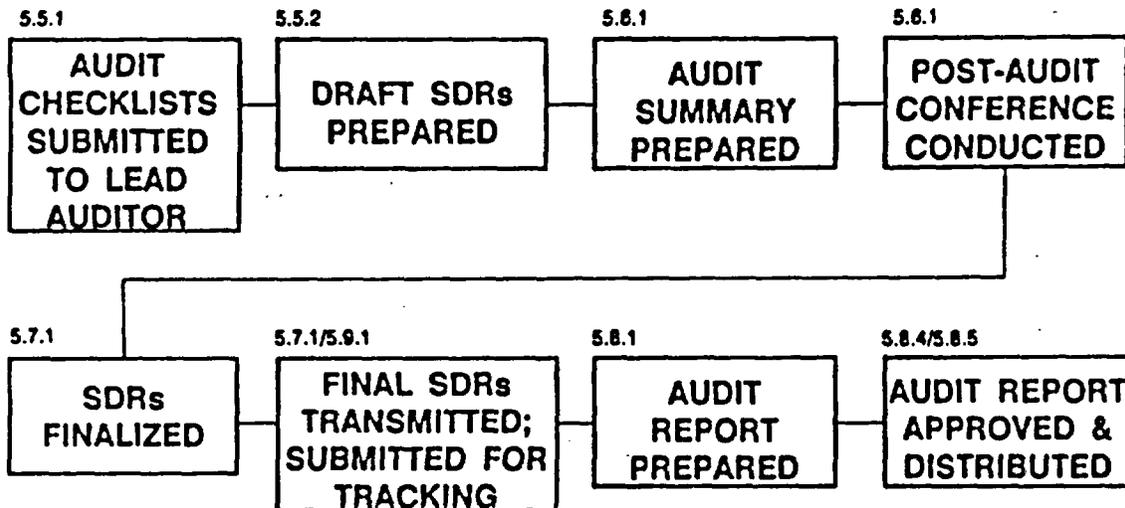
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AUDIT REPORTING



WMPOASJC PUB 7/88

Figure 6. Audit System Flowchart (cont'd)



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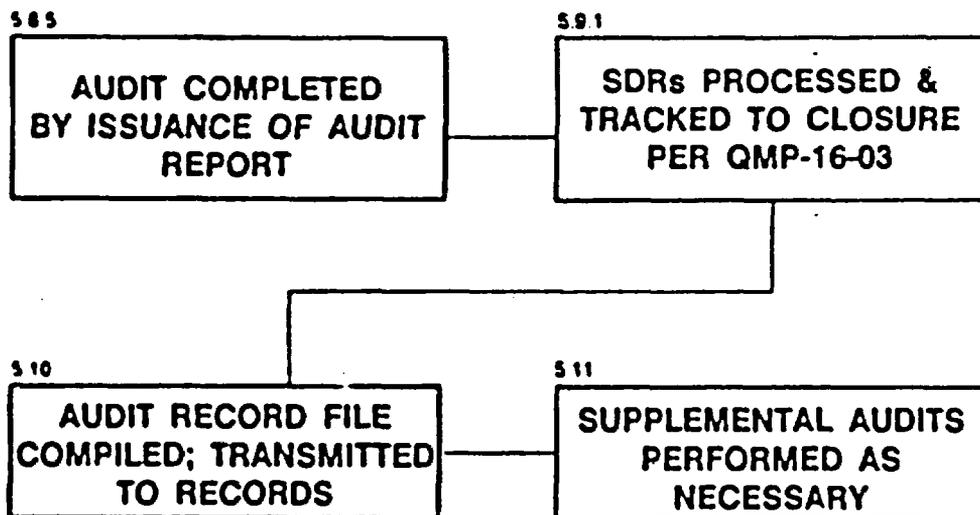
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AUDIT FOLLOW-UP



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Figure 6. Audit System Flowchart (cont'd)



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WMPO AUDIT OBSERVER INQUIRY

Audit No. _____

Log No. _____

Name _____ Organization _____

NNWSI Requirement Reference _____

Question/Concern _____

Response _____

Observers Acknowledgement

Cleared for Submittal to
NNWSI Participant

Lead Auditor / Lead Technical Specialist

Incorporated in WMPO Audit Checklist...Ref _____

Audit Team Leader

Figure 7. WMPO Audit Observer Inquiry

DOCUMENT TRANSMITTAL RECORD

N-GA-022
11/87

PLEASE SIGN AND RETURN BY 10/12/88 Transmittal Date 9/28/88
TO Name SEE DISTRIBUTION LIST Organization SEE DIST.
FROM Name Document Control Organization SAIC
Document Title WMPO QUALITY ASSURANCE PROGRAM PLAN, WMPO/88-1 Copy No. SEE DIST.

ADD DELETE OR REPLACE AS DIRECTED:

REMOVE - QMP Table of Contents (2 pages) dated 9/14/88.

INSERT - QMP Table of Contents (2 pages) dated 9/30/88.

REMOVE - QMP-18-01, Audit System For The Waste Management
Project Office, Rev. 2, dated 2/22/88, located at tab 18.

INSERT - QMP-18-01, Audit System For The Waste Management
Project Office, Rev. 3, dated 10/3/88, at tab 18.

Please sign to indicate that the above instructions have been
complied with and return transmittal to the address listed below:

Signature _____ Date _____

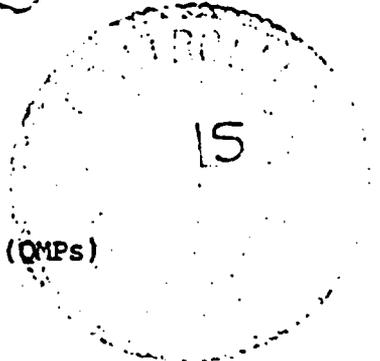
Comments _____

RETURN TO

Science Applications International Corporation
Information Management Division
101 Convention Center Drive, Suite 407
Mail Stop 517
Las Vegas, NV 89109

Title of Document(s) Destroyed _____

By _____ Date _____



WMPO Quality Management Procedures (QMPs)

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QMP No.	ICN No.	QMP Title	Revision No.
QMP-01-01		WMPO Organization	1
QMP-01-02		Stop Work	0
QMP-02-01		Qualification, Proficiency, Indoctrination, and Training of Waste Management Project Personnel	1
QMP-02-02		Qualification of Quality Assurance Audit Personnel	1
QMP-02-06		Assignment of Quality Assurance Levels	0
QMP-02-08		Technical Assessment Review	0
QMP-03-01		Peer Review	0
QMP-03-02		Scientific Investigation Control	In Preparation
QMP-03-03		Use and Control of Computer Programs	To be Developed
QMP-03-04		Software Development and Maintenance	To be Developed
QMP-03-06		Verification and Validation of Computer Programs	To be Developed
QMP-04-01		Procurement Document Control	0
QMP-05-01		Preparation and Control of Quality Management Procedures	1
QMP-05-02		Preparation and Control of Branch Technical Procedures	0
QMP-05-03		Preparation and Control of the NNWSI Project QAP and the WMPO QAPP	0
QMP-06-02		Document Control	In Preparation

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QMP-06-03	1&2	Document Review/Acceptance/Approval	1
QMP-07-03		Control of Purchased Items and Services	0
QMP-07-04		Supplier Surveys	To be Developed
QMP-15-01		Control of Nonconformances	1
QMP-16-01		Corrective Action	0
QMP-16-02		Trend Analysis	2
QMP-16-03		Standard Deficiency Reporting System	0
QMP-17-01		QA Records	In Preparation
QMP-18-01		Audit System for the Waste Management Project Office	3
QMP-18-02		Surveillances	1

Date: September 30, 1988