

U. S. Department of Energy
Carlsbad Field Office

TEAM PROCEDURE**CBFO TP 10.1, Rev. 5**

Effective: May 27, 2007

Expires: May 27, 2009

**SUBJECT: QUALIFICATION OF AUDIT PERSONNEL AND CERTIFICATION
OF LEAD AUDITORS**

Carlsbad Field Office Quality Assurance Manager: //signature on file//

1.0 PURPOSE

The purpose of this team procedure (TP) is to define the process, responsibilities, and controls for the qualification of auditors and technical specialists and the certification of lead auditors for audits conducted under Management Procedure (MP) 10.3, *Audits*, by the Carlsbad Field Office (CBFO).

2.0 SCOPE

This procedure applies to the qualification and certification of personnel who perform or lead CBFO quality assurance (QA) audits of activities that affect regulatory compliance, safety, waste isolation, or TRU waste site certification. This procedure supersedes TP 10.1, Revision 4.

3.0 REFERENCES

References

- CBFO-94-1012, *Quality Assurance Program Document (QAPD)*
- CBFO MP 3.1, *Corrective Action Reports*
- CBFO MP 4.5, *Generating, Receiving, Storing, and Controlling Active CBFO Project Records*
- CBFO MP 4.9, *Quality Assurance Records*
- CBFO MP 10.2, *Surveillances*
- CBFO MP 10.3, *Audits*
- WIPP Hazardous Waste Facility Permit

4.0 RESPONSIBILITIES

4.1 Manager, Carlsbad Field Office

Review the qualifications of the CBFO QA Manager to provide certification as a lead auditor, as applicable, in accordance with section 5.3 of this procedure.

4.2 CBFO QA Manager

4.2.1 Provide audit training for auditors and technical specialists.

4.2.2 Qualify auditors and technical specialists.

AVAILABLE ONLINE AT:

<http://bellview/cbfo/Procedures/ProcedureManualTOC.htm>

INITIATED BY:

CBFO Quality Assurance Manager

- 4.2.3 Examine and certify appropriate personnel as lead auditors.
- 4.2.4 Ensure documentation of audit personnel training, qualification, examination, and certification are maintained as QA records.
- 4.2.5 Provide training for maintenance of proficiency of auditors, lead auditors, and technical specialists.
- 4.3 Lead auditors
 - 4.3.1 Provide evidence to support their qualification and certification.
 - 4.3.2 Maintain lead auditor proficiency in accordance with this procedure.
- 4.4 Auditors and Technical Specialists
 - Acquire the requisite training for initial qualification and maintenance of proficiency.

5.0 PROCEDURE

- 5.1 Technical Specialist Qualification
 - 5.1.1 Technical specialists are selected based on their technical expertise or experience in the work being assessed.
 - 5.1.2 Prospective technical specialists shall read the following documents:
 - A. *CBFO Guide for Technical Specialists* (attachment I)
 - B. MP 3.1, *Corrective Action Reports*
 - C. TP 10.1, *Qualification of Audit Personnel and Certification of Lead Auditors*
 - D. MP 10.2, *Surveillances*, as appropriate to the assignment
 - E. MP 10.3, *Audits*, as appropriate to the assignment
 - 5.1.3 The prospective technical specialist shall complete CBFO Technical Specialist Training, which includes training on the WIPP Hazardous Waste Facility Permit Waste Analysis Plan (WAP), if they perform audits of WAP-related activities.
 - 5.1.4 The prospective technical specialist shall complete attachment II as training is completed.
 - 5.1.5 The CBFO QA Manager shall document the qualifications of technical specialists based on a review of their previous experience and training. Documentation of the qualifications shall be recorded on attachment II. This statement of qualifications shall remain effective until revoked by the CBFO QA Manager, or the individual no longer supports CBFO activities.
 - 5.1.6 Technical specialists shall maintain their proficiency by obtaining training as directed by the CBFO QA Manager.
- 5.2 Auditor Qualification
 - 5.2.1 Prospective auditors shall, as a minimum, complete the CBFO Auditor/Lead Auditor Course, and shall read the following documents:

- A. CBFO-94-1012, *CBFO Quality Assurance Program Document*
- B. MP 3.1, *Corrective Action Reports*
- C. TP 10.1, *Qualification of Audit Personnel and Certification of Lead Auditors*
- D. MP 10.2, *Surveillances*
- E. MP 10.3, *Audits*

NOTES:

1. **Classroom training may be substituted for reading.**
2. **An equivalent course may be substituted for the CBFO Auditor/Lead Auditor Course.**
 - 5.2.2 Prospective auditors shall complete training on the WAP.
 - 5.2.3 Prospective auditors shall complete attachment III as training is completed.
 - 5.2.4 The CBFO QA Manager shall document the qualification of auditors based on a review of their previous experience and training as defined in this section. Documentation of the qualification shall be recorded on attachment III. This qualification shall remain effective until revoked by the CBFO QA Manager or the individual no longer supports CBFO activities.
 - 5.2.5 Auditors shall maintain their proficiency by obtaining training as directed by the CBFO QA Manager.
- 5.3 Lead Auditor Qualification and Certification
 - 5.3.1 Prospective lead auditors shall complete the CBFO Auditor/Lead Auditor Course and shall read the following documents:
 - A. CBFO-94-1012, *CBFO Quality Assurance Program Document*
 - B. MP 3.1, *Corrective Action Reports*
 - C. TP 10.1, *Qualification of Audit Personnel and Certification of Lead Auditors*
 - D. MP 10.2, *Surveillances*
 - E. MP 10.3, *Audits*
 - 5.3.2 Prospective lead auditors shall complete training on the WAP.
 - 5.3.3 Prospective lead auditors shall participate in a minimum of five audits within three years of initial certification. In addition, one of these audits shall be an audit of WIPP-related activities within the year prior to certification.
 - 5.3.4 Prospective lead auditors shall pass an examination developed by the CBFO QA Manager. A passing score is 80%.
 - 5.3.5 Prospective lead auditors shall document their qualifications on attachment IV. The CBFO QA Manager shall complete block 13. Instructions for scoring prospective lead auditors are included in attachment V.

5.3.6 The CBFO QA Manager shall certify lead auditors based on a review of their previous experience and training. Documentation of the certification shall be recorded on attachment IV. This certification shall remain effective until revoked by the CBFO QA Manager, the individual no longer supports CBFO activities, or the requirements of section 5.4 are not met.

5.4 Lead Auditor Annual Certification Evaluation

5.4.1 The CBFO QA Manager shall evaluate the proficiency of lead auditors annually. Based on the evaluation, the CBFO QA Manager shall choose to extend the certification, require retraining, or require requalification.

5.4.2 The CBFO QA Manager shall document the annual lead auditor evaluation on attachment V. The instructions for completing the lead auditor maintenance of proficiency record (attachment V) are provided on page 2 of attachment V.

5.4.3 Lead auditors who fail to maintain their proficiency for a period of two or more years shall require requalification. Requalification shall include retraining in accordance with the requirements contained in section 5.3.2, reexamination in accordance with the requirements of section 5.3.4, and participation as an auditor in at least one WIPP-related QA audit.

5.5 External Lead Auditor Certification

5.5.1 The CBFO QA Manager shall evaluate the certification documentation of prospective lead auditors previously certified by outside (non-CBFO) organizations and determine the suitability of the prospective lead auditor qualifications and documentation for the CBFO QA program. Appropriate training, examination, and audit participation will be specified for such prospective lead auditors.

5.5.2 Prospective lead auditors previously certified by outside organizations shall participate in a minimum of one WIPP-related audit and fulfill the training and examination requirements specified in section 5.3 prior to CBFO QA Manager certification.

6.0 RECORDS

The following documents generated as a result of implementing this procedure shall be processed and maintained as QA records in accordance with established CBFO records management procedures.

- Lead auditor qualification and certification form
- Lead auditor maintenance of proficiency record
- Auditor qualification form
- Technical specialist qualification form

7.0 **ATTACHMENTS**

Attachment I. CBFO Guide for Technical Specialists

Attachment II. Technical Specialist Qualifications Form

Attachment III. Auditor Qualifications Form

Attachment IV. Record of Lead Auditor Qualification and Certification Form and Lead Auditor
Certification Scoring System

Attachment V. Lead Auditor Maintenance of Proficiency Record and Instructions for Completing Lead
Auditor Maintenance of Proficiency Record

Attachment VI. Procedure Flow Logic Diagram

CBFO Guide for Technical Specialists

Introduction

In the audit or surveillance area to which you have been assigned, you are responsible for using your technical expertise and experience to investigate, examine, and evaluate technical and end-product adequacy and the effectiveness of process implementation developed and used by other professionals in your field. You are to document the results of your effort.

You are not expected to perform the work a second time and then compare your results with those previously achieved by others. Rather, you are to evaluate the methodology and steps of the technical processes that have been developed. Even though the approach may be different than the way you would do it, your job is to evaluate the adequacy and effectiveness of the approach that was actually used.

Contact

The team leader is your key contact for all audit or surveillance activities. During audit and surveillance activities involving direct contact with personnel from the audited organization, you will be accompanied by a quality assurance auditor.

What You Will Do

Prior to the audit or surveillance:

- Identify the technical processes you need to review for adequacy during the course of your efforts
- Determine and develop the information you need to conduct a thorough investigation, examination, and evaluation of the technical processes used
- Indicate potential sources of the information you need to evaluate process performance
- Develop checklists covering the activities assigned.

In the pursuit of the assessment objectives, prepare checklists to guide your efforts. Typical types of checklist questions include:

- Are technical requirements, bases, inputs, and procedures appropriately identified and implemented adequate for the current process and traceable to their source?
- Do technical documents show clear flow-down of requirements from the higher level (programmatic) to lower level (working), with an appropriate indication as to the origin of the requirements?
- Are the methods and techniques used to perform technical tasks valid, suited to the application, recognized by the scientific and engineering communities, and traceable to their source?
- Are applications of computer software programs appropriately documented and the codes adequately verified and validated?
- Are assumptions used in the performance of scientific and engineering work clearly identified and verified or highlighted for verification at a future time?
- Are the methods used to control identified errors, omissions, and deficiencies in technical work formalized in approved implementing documents? Are the methods effective in correction and prevention of recurrence?

During the audit or surveillance, as well as when documenting your results on the checklist, you should include:

- Identification number, title, and revision of any documents reviewed
- The results of the evaluation of objective evidence that you reviewed
- Name, title, and phone number of those individuals in the organization with whom you come in contact

Prior to the postaudit meeting you must provide to the team leader a paragraph to be included in the final report stating what was looked at and the final results, with a statement as to the effectiveness of the processes in achieving the intended goals. You will provide your completed checklists at the same time.

The Report

The team leader will require your assistance during the week following the assessment to provide additional input or clarifications for the final preparation of the report, or in developing corrective action reports.

TECHNICAL SPECIALIST
QUALIFICATIONS DOCUMENTATION (Example)

Carlsbad Field Office
TECHNICAL SPECIALIST QUALIFICATIONS

NAME: _____ EXPERTISE: _____

PREVIOUS EXPERIENCE (Resume Attached)

| ORIENTATION (Includes Reading): | REV. | COMPLETION DATE | INITIALS |
|--|-------|--------------------|----------|
| <i>CBFO Guide For Technical Specialists</i> | _____ | _____ | _____ |
| MP 3.1, <i>Corrective Action Reports</i> | _____ | _____ | _____ |
| TP 10.1, <i>Qualification and Certification of Audit Personnel</i> | _____ | _____ | _____ |
| MP 10.2, <i>Surveillances</i> | _____ | _____ | _____ |
| MP 10.3, <i>Audits</i> | _____ | _____ | _____ |

TRAINING: Technical Specialist Training (includes training on the Waste Analysis Plan)

Completion Date: _____

EVALUATED BY: _____ DATE _____

CBFO QA Manager

Note: Use NA for items not applicable.

AUDITOR QUALIFICATIONS DOCUMENTATION (Example)

| Carlsbad Field Office AUDITOR QUALIFICATIONS | | | |
|--|-------------|----------------------------|-----------------|
| NAME: _____ | | | |
| PREVIOUS EXPERIENCE (Resume Attached) | | | |
| | <u>REV.</u> | <u>COMPLETION DATE</u> | <u>INITIALS</u> |
| ORIENTATION (Includes Reading): | | | |
| <i>CBFO Quality Assurance Program Document (CBFO-94-1012)</i> | _____ | _____ | _____ |
| MP 3.1, <i>Corrective Action</i> | _____ | _____ | _____ |
| TP 10.1, <i>Qualification and Certification of Audit Personnel</i> | _____ | _____ | _____ |
| MP 10.2, <i>Surveillances</i> | _____ | _____ | _____ |
| MP 10.3, <i>Audits</i> | _____ | _____ | _____ |
| TRAINING: Waste Analysis Plan Training _____ | | | |
| Auditor/Lead Auditor Course _____ or Equivalent | | | |
| ON-THE-JOB TRAINING (Optional): | | | |
| On-the-job training of QA audit planning, performance, reporting, and follow-up actions was completed satisfactorily. | | | |
| AUDIT # _____ DATE _____ | | | |
| _____ | | _____ | |
| Audit Team Leader | | Date | |
| EVALUATED BY: _____ | | Date _____ | |
| CBFO QA Manager | | | |
| Note: Use NA for items not applicable. | | | |

**CARLSBAD FIELD OFFICE
EXAMPLE OF RECORD OF LEAD AUDITOR QUALIFICATION AND CERTIFICATION**

| | | | |
|--|--|---------------------------------------|------------------------|
| Carlsbad Field Office RECORD OF LEAD AUDITOR QUALIFICATION AND CERTIFICATION | | 1. Name | 2. Date |
| 3. EMPLOYER | | | |
| QUALIFICATION CREDIT REQUIREMENTS | | | |
| 4. Education - University/Degree Date | | 4 Credits Max. | Credits Awarded |
| 1. Associate Degree (1 credit, if engineering, etc then 2 credits) 2. Undergraduate Level (2 credits, if engineering, etc. then 3 credits) 3. Graduate Level (1 additional credit for advanced degree in engineering, etc.) | | | |
| 5. Experience - Company/Dates | | 9 Credits Max. | |
| Technical (0-5 credits) and If Nuclear Industry (2 years) add 1 credit, or If Quality Assurance (2 years) add 2 credits, or If Auditing (2 years) add 3 credits, or If Nuclear QA Auditing (2 years) add 4 credits | | | |
| 6. Professional accomplishment - Certificate/Date | | 2 Credits Max. | |
| 1. P.E. 2. Society | | | |
| 7. Rights of Management - Justification/Evaluator/Date | | 2 Credits Max. | |
| Explain: Evaluated by: (Name and Title) _____ Date _____ | | | |
| 8. Total Credits: | | (10 Minimum for Certification) | |
| 9. AUDIT COMMUNICATION SKILLS | | | |
| Evaluated by: (Name and Title) _____ | | | |
| Name | | Title | Date |
| 10. AUDIT TRAINING COURSES COMPLETED | | | |
| Course Title or Topic: | | | Date |
| 1. | | | |
| 2. | | | |
| 11. AUDIT PARTICIPATION | | | |
| Location | | Audit | Date |
| | | | |
| | | | |
| 12. EXAMINATION: | | | DATE: |
| 13. AUDITOR CERTIFIED BY: (Printed w/title, signed) | | | Date Certified |
| 14. ANNUAL EVALUATION | | | |
| (Signature and Date) | | | |
| | | | |

LEAD AUDITOR CERTIFICATION SCORING SYSTEM

EDUCATION (4 credits maximum)

Associate degree from an accredited institution:

1 credit for an associate degree in any discipline; or

2 credits for an associate degree in engineering, physical sciences, mathematics, or quality assurance.

Bachelor's degree

2 credits for a bachelor's degree in any discipline; or

3 credits for a bachelor's degree in engineering, physical sciences, mathematics, or quality assurance.

Master's degree (or higher)

1 additional credit for a master's degree in engineering, physical sciences, business management, or quality assurance.

EXPERIENCE (9 credits maximum)

Technical experience (5 credits maximum)

1 credit for each full year working in scientific investigation, site characterization, nuclear waste management, production, transportation, engineering, manufacturing, construction, operation, maintenance, or experience applicable to the CBFO area of responsibility.

Additional Credits

1 additional credit if 2 or more years of this experience have been in the nuclear field; or

2 additional credits if 2 or more years of this experience have been in quality assurance; or

3 additional credits if 2 or more years of this experience have been in auditing, assessment, or nuclear-related quality assurance; or

4 additional credits if 2 or more years of this experience have been in nuclear-related quality assurance auditing or assessment.

PROFESSIONAL COMPETENCE (2 credits maximum)

2 credits for certification of competency in engineering, science, or quality assurance specialties issued and approved by a state agency or national professional or technical society. Examples include Registered Professional Engineer (PE), Registered Engineer in Training (EIT), Registered Professional Geologist (RPG), ASQ Certified Quality Engineer (CQE), and ASQ Certified Quality Auditor (CQA).

RIGHTS OF MANAGEMENT (2 credits maximum)

2 credits may be granted by the CBFO QA Manager for other performance factors applicable to auditing, such as leadership, sound judgment, maturity, analytic ability, tenacity, past performance, and quality assurance training courses.

LEAD AUDITOR MAINTENANCE OF PROFICIENCY RECORD

Lead Auditor proficiency for _____ has been maintained through one or more of the following:

1. TO BE FILLED OUT BY LEAD AUDITOR

- Regular and active participation in the audit process (use attachment as necessary).

Audit Number Description Dates of Audit

- Review and study of applicable codes and standards, current revisions of applicable procedures and instructions, and other documents related to the CBFO Quality Assurance Program during the period evaluated, are identified below and acknowledge by individual initials and signature.

Table with 2 columns: Document, Initials. Includes a large 'EXAMPLE' watermark.

- Participation in training programs. (use attachments as necessary)

Course Title Dates Attended

REMARKS: _____

Signature: _____ Date: _____

2. QA MANAGER EVALUATION

- Extend certification based on above statement
Extend certification upon completion of the attached action(s)
Requalify Lead Auditor

CBFO Quality Assurance Manager

Date

LEAD AUDITOR MAINTENANCE OF PROFICIENCY RECORD

SECTION #1 (To be completed by lead auditor)

This section is divided into three main sub sections and a remarks section. The lead auditor is only required to fill in one or more of the sub sections.

The first section requires the identification of any audits you have participated on since your initial certification or subsequent annual evaluations. You will need to identify the audit number, description (scope) and dates that the audit was performed. A copy of the audit report is not required if it is located in the QA files. Refer to REMARKS to explain any special participation.

The second section should be completed to reflect reading or re-reading of applicable documents within the past 12 months. Use the space after "other" to document other applicable documents that have been read.

The third section is for the identification of any training courses on or off site which you attended to support your function. You will need to identify the course title and the dates attended.

The remarks section is for the clarification of any of the above.

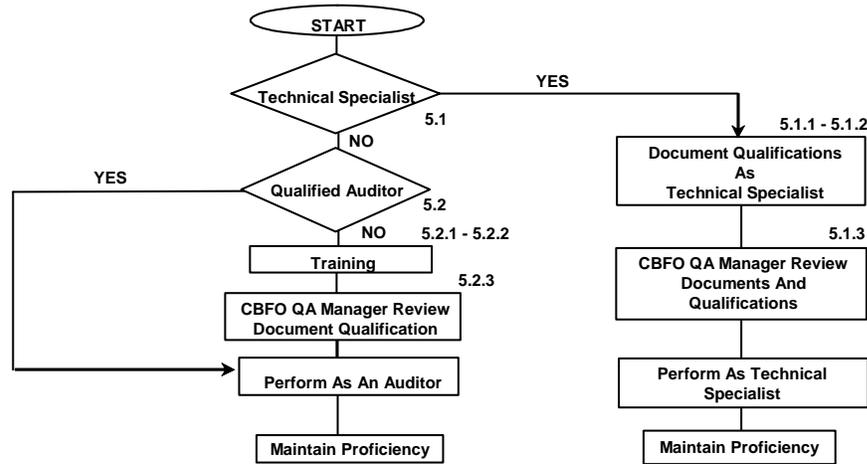
You will need to sign and date where indicated.

SECTION #2

This section is to be completed by the QA Manager or CBFO Manager as appropriate based on the information provided in Section 1.

PROCEDURE FLOW LOGIC DIAGRAM

AUDITOR/TECHNICAL SPECIALIST QUALIFICATION



LEAD AUDITOR CERTIFICATION

