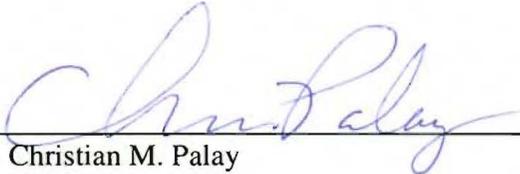


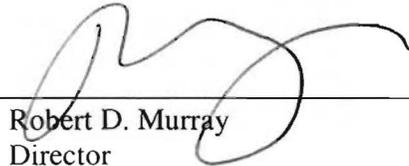


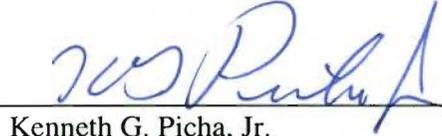
Office of Environmental Management (EM)

Subject: Qualification of Audit Personnel

Administrative Procedure

Preparer:  4/26/2011
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Date

Approved:  4-27-2011
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Director
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Date

Concurrence:  4-27-2011
Kenneth G. Picha, Jr.
Acting Deputy Assistant Secretary
Safety and Security Program
Date

1.0 PURPOSE

1.1 The purpose of this procedure is to establish responsibilities and processes for the indoctrination, training, and qualification of personnel who conduct audits or surveillances for the Environmental Management (EM) High Level Waste (HLW) and Used Nuclear Fuel (UNF) Independent Oversight Program. This procedure also establishes processes for maintaining lead auditor proficiency and accepting audit team members qualified under other quality assurance (QA) auditor qualification programs. The HLW and UNF programs are based on the Quality Assurance Requirements and Description (QARD), DOE/RW-0333P.

2.0 SCOPE

2.1 The scope of this procedure is QA audits, surveillances, and associated activities for the EM HLW and UNF Independent Oversight Program.

3.0 APPLICABILITY

3.1 This procedure applies to EM personnel and contractors that participate in QA oversight activities for the EM HLW and UNF Independent Oversight Program.

4.0 REQUIREMENTS and REFERENCES

4.1 Requirements

4.1.1 Quality Assurance Requirements and Description (QARD), DOE/RW-0333P, Revision 20

4.1.2 EM-QA-002, Quality Assurance Program Plan (QAPP)

4.2 References

4.2.1 AP-2.2Q, Surveillances

4.2.2 AP-16.1Q, Corrective Action

4.2.3 AP-17.1Q, Quality Assurance Records

4.2.4 AP-18.1Q, Audits

5.0 DEFINITIONS and ACRONYMS

N/A

6.0 RESPONSIBILITIES

6.1 Deputy Assistant Secretary, Safety and Security Program

6.1.1 Based on documented evaluation per this procedure and concurrence by the Director, Office of Standards and Quality Assurance, certifies lead auditor qualifications.

- 6.1.2 Based on documented evaluation per this procedure and concurrence by the Director, Office of Standards and Quality Assurance, if needed, establishes the requirements for lead auditors to regain proficiency.
- 6.2 Director, Office of Standards and Quality Assurance
 - 6.2.1 Based on documented evaluation per this procedure and input from the QA Lead, determines acceptability of lead auditor qualifications and forwards to the Deputy Assistant Secretary, Safety and Security Program, with concurrence.
 - 6.2.2 Based on documented evaluation per this procedure and input from the QA Lead, provides recommendation regarding lead auditor proficiency and forwards to the Deputy Assistant Secretary, Safety and Security Program, with concurrence.
 - 6.2.3 Based on documented evaluation per this procedure and input from the QA Lead, approves auditor qualifications.
- 6.3 QA Lead, Office of Standards and Quality Assurance
 - 6.3.1 Provides input to the Director, Office of Standards and Quality Assurance on the qualification of lead auditors.
 - 6.3.2 Provides input to the Director, Office of Standards and Quality Assurance regarding lead auditor maintenance of proficiency.
 - 6.3.3 Provides input to the Director, Office of Standards and Quality Assurance on the qualification of auditors.
- 6.4 Lead Auditors
 - 6.4.1 Determine qualification requirements for auditors and technical specialists as necessary to perform site specific audits or surveillances.
 - 6.4.2 Review and qualify auditors and technical specialists to site specific requirements.
- 6.5 EMCBC Office of Logistics Management
 - 6.5.1 Provides auditors and technical specialists as necessary to support the EM HLW and UNF Independent Oversight Program.
 - 6.5.2 Completes, reviews, and obtains approval signature related to the certification of lead auditors.

- 6.5.3 Completes, reviews, and obtains approval signature related to the qualification of auditors.
- 6.5.4 Provides annual maintenance of proficiency notifications to lead auditors.
- 6.5.5 Reviews and provides recommendation regarding lead auditor maintenance of proficiency.
- 6.5.6 Maintains records related to the certification and qualification of lead auditors.
- 6.5.7 Maintains records related to the qualification of auditors and audit team members.
- 6.5.8 Maintains records regarding lead auditor maintenance of proficiency.

7.0 GENERAL INFORMATION

N/A

8.0 PROCEDURE

8.1 Qualification of Lead Auditors

- 8.1.1 Provide the prospective lead auditor with Form 2.1-1, QARD Compatible Lead Auditor Qualification Record. Obtain copies of objective evidence of relevant experience and training.
- 8.1.2 Using Form 2.1-1, verify that the prospective lead auditor meets the criteria of Attachment A.
- 8.1.3 Compile training and qualification records to support completion of Form 2.1-1.
- 8.1.4 Submit Form 2.1-1 with recommendation to the Director for the Office of Standards and Quality Assurance for approval.
- 8.1.5 Maintain the completed QARD Compatible Lead Auditor Qualification Record in accordance with AP-17.1Q, Quality Assurance Records.

8.2 Maintaining Lead Auditor Proficiency

- 8.2.1 On an annual basis, provide each QARD-certified lead auditor with Form 2.1-2, QARD Compatible Lead Auditor Maintenance of Proficiency Record, for completion.
- 8.2.2 Complete Form 2.1-2 based on a review of the training and audit participation records to the criteria established in Attachment A. If needed,

establish the requirements for the lead auditor to regain proficiency using the criteria in Attachment A.

8.2.3 Submit Form 2.1-2 with recommendation to the Director for the Office of Standards and Quality Assurance for approval.

8.2.4 Maintain the completed QARD Compatible Lead Auditor Maintenance of Proficiency Record in accordance with AP-17.1Q, Quality Assurance Records.

8.3 Qualification of Auditors

8.3.1 Provide prospective auditors with Form 2.1-3, QARD Compatible Auditor Qualification Record, for completion. Obtain copies of objective evidence of relevant experience and training.

8.3.2 Using Form 2.1-3, verify that the prospective auditor meets the criteria of Attachment B.

8.3.3 Submit Form 2.1-3 with recommendation to the Director for the Office of Standards and Quality Assurance for approval.

8.3.4 Maintain the completed QARD Compatible Auditor Qualification Record in accordance with AP-17.1Q, Quality Assurance Records.

8.4 Acceptance of Audit Team Members

8.4.1 Prior to the start of each HLW or UNF audit, initiate Form 2.1-4, Audit Team Member Record, for the assigned lead auditor.

8.4.2 Complete Form 2.1-4 by listing each auditor and technical specialist assigned to the audit.

8.4.3 Ensure that each assigned auditor meets the criteria of Attachment B.

8.4.4 Ensure that each assigned technical specialist meets the criteria of Attachment C.

8.4.5 Process the completed Audit Team Member Record in accordance with AP-17.1Q, Quality Assurance Records.

9.0 RECORDS MAINTENANCE

9.1 The following forms (Section 10) shown below, generated through implementation of this procedure, shall be prepared and maintained in accordance with AP-17.1Q, Quality Assurance Records.

10.0 FORMS USED

Form 2.1-1, QARD Compatible Lead Auditor Qualification Record

Form 2.1-2, QARD Compatible Lead Auditor Maintenance of Proficiency Record

Form 2.1-3, QARD Compatible Auditor Qualification Record

Form 2.1-4, Audit Team Member Record

Form 5.1-1, Record of Revision

11.0 ATTACHMENTS

Attachment A – Requirements for QARD Compatible Qualification of Lead Auditors

Attachment B – Requirements for QARD Compatible Qualification of Auditors

Attachment C – Basis for Selecting Technical Specialists

12.0 FLOWCHART

N/A

Attachment A
Requirements for QARD Compatible Qualification of Lead Auditors

Professional Competence	A maximum of two credits may be allocated for verifiable certifications of competency in engineering, science, or QA specialties issued and approved by a state agency or national professional or technical society.
Rights of Management	When determined appropriate, the auditing organization may grant up to two credits for other verifiable performance factors applicable to auditing that are not explicitly called out elsewhere in this attachment. This may include credit for leadership, sound judgment, maturity, analytical ability, tenacity, past performance, and completed QA training courses.
Past Audit Participation	The lead auditor must have participated in a minimum of five QA audits (equivalent to an audit process as described by AP-18.1Q, Audits) within a period of time not to exceed 3 years prior to the date of certification. One audit shall be a nuclear-related QA audit within the year prior to certification. Participation in these five audits must be verifiable.
Lead Auditor Classroom Instruction	<p>Classroom training is used in conjunction with and may be substituted for on-the job training. Classroom training objectives include:</p> <ul style="list-style-type: none"> • Knowledge and understanding of the QARD and other program-related procedures, codes, standards, regulations, and regulatory guides. • The general structure of QA programs as a whole and the specific elements of the QARD applicable. • Auditing techniques of examining, questioning, evaluating, and reporting. Methods of identifying, following up on, and closing corrective action items. • Audit planning in functional areas (such as scientific investigation, design, purchasing, construction, fabrication, handling, shipping storage, cleaning, inspection, testing statistics nondestructive examination, maintenance, repair, operation, modification, and safety) of nuclear facilities.
Examination	<p>The auditing organization develops and administers examinations for lead auditors; maintains the integrity of the examination through confidentiality of files and, where applicable, proctoring of examinations; and develops and maintains objective evidence regarding the type and content of the examination.</p> <p>Prospective lead auditors shall pass an examination that evaluates the comprehension of and ability to apply the audit knowledge described in this attachment. The test shall be oral, written practical, or any combination.</p>
Other Training Courses	Optional Proficiency Training: Other training courses related to QA specialties, Root Cause Analysis, or principles of auditing may be taken into consideration under rights of management or for purposes of maintaining proficiency.

<p>On-The Job Training</p>	<p>Classroom training may be substituted for on-the job training. On-the-job training is accomplished through participation in QA audits under the supervision of a lead auditor. On-the-job training includes applicable elements of the audit program.</p> <p>The QARD, QAPP, and all associated implementing documents are required reading for lead auditors.</p>
<p>Communication Skills Evaluation</p>	<p>In judgment of the candidate's supervisor as attested to in writing, the candidate demonstrates effective oral and written communication skills.</p>
<p>Basis of Certification</p>	<p>The combination of credits allocated for Education, Experience, Professional Competence, and Rights of Management must total a minimum of 10 credits. The achievement of 10 credits considered in conjunction with communication skills, training, examination results, and the additional prerequisites form the basis for certification. The certification must be signed by the representative of the auditing organization responsible for certification.</p>
<p>Maintenance of Proficiency</p>	<p>Lead auditors shall maintain their proficiency through one or a combination of the following:</p> <ul style="list-style-type: none"> • Regular and active participation in the audit process. • Review and study of codes, standards, implementing documents, instructions, and other documents related to the QA program and program auditing. • Participation in QA training programs. <p>Management of the auditing organization shall document a proficiency evaluation of lead auditors annually. Based on the evaluation, management may choose to extend the qualification, require retraining, or require requalification.</p>
<p>Retraining</p>	<p>Retraining to regain proficiency shall be determined by the management of the auditing organization on a case-by-case basis. The retraining may include elements of the lead auditor classroom training or review of code, standards, implementing document, instructions, and other documents related to the QA program and program auditing.</p> <p>The QARD, QAPP, and all associated implementing documents are required reading for retraining purposes.</p>
<p>Requalification</p>	<p>Lead auditors who fail to maintain their proficiency for a period of 2 years or more shall require requalification.</p> <p>Requalification shall include retraining and reexamination in accordance with this attachment, and participation as an auditor in at least one nuclear QA audit.</p>

Attachment B
Requirements for QARD Compatible Qualification of Auditors

Post Secondary Education	A post-secondary education is optional. Consideration for up to 2 years work experience can be given for 4 or more years of a post-secondary education in physical science, engineering, business management, or QA.
Work Experience	Two years nuclear QA industry experience engaged in the development, implementation, or verification of nuclear QA programs or aspects thereof.
Professional Competence	Consideration may be given for certifications of competency in engineering, science, or QA specialties issued and approved by a state agency or national professional or technical society.
Rights of Management	Not Applicable.
Past Audit Participation	Two audits or surveillances of a nuclear-related QA program as an auditor or technical specialist under the direct supervision of a lead auditor.
Lead Auditor Classroom Instruction	(Optional) Lead Auditor Classroom instruction, if given, shall be as stipulated for lead auditors in Attachment A.
Examination	(Optional) A lead auditor exam, if given, shall be as stipulated for lead auditors in Attachment A.
Other Training Courses	<p>(Optional) Proficiency training courses to provide general and specialized training in audit performance may be used such as:</p> <ul style="list-style-type: none"> • General training in the fundamentals, objectives, and techniques of performing audits. • Specialized training in methods of examining, questioning, evaluating, and documenting specific audit items and methods of closing out conditions adverse to quality addressed by corrective action documents. • Root Cause Analysis.
On-The-Job Training	<p>On-the-job training consists of guidance and counseling under the direct supervision of a lead auditor.</p> <p>The training shall include planning, performing, reporting, and follow-up action involved in conducting audits. Documented audit or surveillance specific briefings and actual audit or surveillance performance under the supervision of a lead auditor represent this training. The lead auditor classroom training and successful passing of the lead auditor examination may be substituted for this portion of on-the-job training.</p> <p>The QARD, QAPP, and Procedures AP-2.2Q, AP-16.1Q, and AP-18.1Q are required reading for auditor qualification purposes.</p>

Communication Skills Evaluation	Not Required.
Basis of Qualification Approval	The basis for qualification approval is formed by evidence of work experience, evidence of participation in two nuclear-related QA program audits or surveillances and evidence of completion of on-the-job training.
Maintenance of Proficiency	Not Required.

Attachment C
Basis for Selecting Technical Specialists

Post Secondary Education (Optional)	<p><u>Technical Specialist (Scientific or Engineering)</u> (Optional) Consideration for up to 2 years work experience can be given for 4 or more years of a post-secondary education in a science or engineering field relevant to the scope, complexity, or special nature of work being audited.</p> <p><u>Technical Specialist (Administrative Systems)</u> (Optional) Consideration for up to 2 years work experience can be given for 4 or more years of a post-secondary education in physical science, engineering, business management, or QA.</p>
Work Experience	<p><u>Technical Specialist (Scientific or Engineering)</u> Four years work experience in a science or engineering discipline relevant to the scope, complexity, or special nature of the work being audited.</p> <p><u>Technical Specialist (Administrative Systems)</u> Two years engaged in administrative processes relevant to the scope, complexity, or special nature of the work being audited. Examples of administrative processes include Configuration Management, Document Control, Records Management, or Training Program activities subject to the controls of a nuclear-related QA Program.</p>
Professional Competence	Consideration may be given for certifications of competency in engineering, science, or QA specialties issued and approved by a state agency or national professional or technical society.
Rights of Management	Not Applicable
Past Audit Participation	Not Required
Lead Auditor Classroom	Not Required
On-The Job Training	Not Required
Other Training Courses	<p>On-the job training consists of guidance and counseling under the direct supervision of a lead auditor.</p> <p>The training shall include planning, performing, reporting, and follow-up action involved in conducting audits. Documented audit or surveillance specific briefings and actual audit or surveillance performance under the supervision of a lead auditor represent this training. Completion of the lead auditor classroom training and successful passing of the lead auditor examination may be substituted for this portion of on-the-job training.</p>
Communication Skills Evaluation	Not Required
Maintenance of Proficiency	Not Required
Required Reading	QARD, QAPP, and Procedures AP-2.2Q, AP-16.1Q, and AP-18.1Q.

Form 2.1-1
QARD Compatible Lead Auditor Qualification Record

RECORD OF LEAD AUDITOR QUALIFICATION	<i>Name</i>	<i>Date</i>	
<i>EMPLOYER:</i>			
QUALIFICATION POINT REQUIREMENTS		CREDITS	
<i>Education – University/Degree Date</i>		<i>4 Credits Max.</i>	
<ol style="list-style-type: none"> 1. <i>Undergraduate Level</i> 2. <i>Graduate Level</i> 		_____	
<i>Experience – Company/Dates</i>		<i>9 Credits Max.</i>	
<ol style="list-style-type: none"> 1. <i>Technical (0-5 credits) and Nuclear Quality Assurance (3 credits), or</i> 2. <i>Nuclear Industry (1 credit), or Nuclear Quality Assurance Auditing (4 credits)</i> <li style="padding-left: 20px;"><i>Quality Assurance (2 credits), or</i> <li style="padding-left: 20px;"><i>Auditing (3 credits)</i> 		_____	
<i>Professional Accomplishment – Certificate/Date</i>		<i>2 Credits Max.</i>	
<ol style="list-style-type: none"> 1. <i>P.E.</i> 2. <i>Society</i> 		_____	
<i>Management – Justification/Evaluator/Date</i>		<i>2 Credits Max.</i>	
<i>Explain:</i>		_____	
<i>Evaluated by: (Name and Title)</i>		<i>Date:</i>	
Total Credits:		_____	
AUDIT COMMUNICATION SKILLS			
<i>Evaluated by: (Name and Title)</i>		<i>Date:</i>	
AUDIT TRAINING COURSES			
<i>Course Title or Topic:</i>			
<ol style="list-style-type: none"> 1. 2. 			
AUDIT PARTICIPATION			
	<i>Location</i>	<i>Audit</i>	<i>Date</i>
1.			
2.			
3.			
4.			
5.			
EXAMINATION:		PASSED:	DATE:
QUALIFICATION CERTIFIED BY:		Date Certified	
<i>(Signature and Title)</i>			
ANNUAL EVALUATION			
<i>(Signature and Date)</i>			

Form 2.1-1 – GENERAL INSTRUCTIONS

Based on ASME NQA-1-2004, Non-mandatory Appendix 2A-3 – Guidance on the Education and Experience of Lead Auditors.

The prospective Lead Auditor shall have verifiable evidence that a minimum of 10 credits under the following score system have been accumulated. Based on the requirements listed in AP-2.1Q, Qualification of Audit Personnel, Attachment A, document on the above form qualification information that supports qualification as a QARD Compatible Lead Auditor.

Education (4 Credits Maximum)

- (a) Associate degree from an accredited institution: score 1 credit or, if the degree is in engineering, physical sciences, mathematics, or quality assurance, score 2 credits; or
- (b) A bachelor's degree from an accredited institution: score 2 credits or, if the degree is in engineering, physical sciences, mathematics, or quality assurance, score 3 credits; in addition, score 1 credit for a master's degree in engineering, physical sciences, business management, or quality assurance from an accredited institution.

Experience (9 Credits Maximum)

Technical experience in engineering, manufacturing, construction, operation, or maintenance: score 1 credit for each full year with a maximum of 5 credits for this aspect of experience.

- (a) If 2 years of this experience have been in the nuclear field, score 1 additional credit; or
- (b) If 2 years of this experience have been in quality assurance, score 2 additional credits; or
- (c) If 2 years of this experience have been in auditing, score 3 additional credits; or
- (d) If 2 years of this experience have been in nuclear quality assurance, score 3 additional credits; or
- (e) If 2 years of this experience have been in nuclear quality assurance auditing, score 4 additional credits.

Other Credentials of Professional Competence (2 Credits Maximum)

For certification of competency in engineering science, or quality assurance specialties issued and approved by a state agency or national professional or technical society; score 2 credits.

Rights of Management (2 Credits Maximum)

The Lead Auditor's employer may grant up to 2 credits for other performance factors applicable to auditing, which may not be explicitly called out in the instruction. Examples of these factors are leadership, sound judgment, maturity, analytical ability, tenacity, past performance, and quality assurance training courses.

Form 2.1-2 – GENERAL INSTRUCTIONS

Based on the requirements listed below and in AP-2.1Q, Qualification of Audit Personnel, Attachment A, document on the above form activities which support maintenance of proficiency as a QARD Compatible Lead Auditor.

**ASME NQA-1-2004, Quality Assurance Requirements for Nuclear Facility Applications
Requirement 2 – Quality Assurance Program**

Paragraph 303.5 Maintenance of Proficiency

- *Lead Auditors shall maintain their proficiency through one or more of the following:*
 - (a) regular and active participation in the audit process*
 - (b) review and study of codes, standards, procedures, instructions, and other documents related to quality assurance program and program auditing*
 - (c) participation in training program(s)*
- *Based on annual assessment, management may extend the qualification, require retraining, or require requalification.*

Form 2.1-3
QARD Compatible Auditor Qualification Record

RECORD OF AUDITOR QUALIFICATION	Name	Date	
EMPLOYER:			
POST-SECONDARY EDUCATION			
WORK EXPERIENCE			
AUDIT-RELATED TRAINING			
AUDIT PARTICIPATION			
	Location	Audit	Date
	1.		
	2.		
	3.		
	4.		
	5.		
QUALIFICATION EVALUATED BY: (Signature and Title)			Date
QUALIFICATION APPROVED BY: (Signature and Title)			Date

Form 2.1-3 – GENERAL INSTRUCTIONS

Based on the requirements listed in AP-2.1Q, Qualification of Audit Personnel, Attachment B, document on the above form information that supports qualification as a QARD Compatible Auditor.

Form 2.1-4
Audit Team Member Record

AUDIT TEAM MEMBER RECORD	Name	Date
Organization, Title, Contact Information	Audit or Surveillance Title, Number, Information	
QUALIFICATION STATUS (obtain objective evidence not already on file)		
<input type="checkbox"/> Auditor – Use AP-2.1Q, Attachment B <input type="checkbox"/> Technical Specialist – Use AP-2.1Q, Attachment C		
Assigned Function:		
REQUIRED READING, PREPARATION, and SCHEDULES		
AUDIT or SURVEILLANCE ASSIGNMENTS and DELIVERABLES		
QUALIFICATION APPROVED BY: (Signature and Title)		Date

RECORD OF REVISION

DOCUMENT: AP-2.1Q, Qualification of Audit Personnel

If there are changes to the controlled document, the revision number increases by one. Indicate changes by one of the following:

- I Placing a vertical black line in the margin adjacent to sentence or paragraph that was revised.
- I Placing the words GENERAL REVISION at the beginning of the text.

Rev. No.	Description of Changes	Revision on Pages	Date
0	Original	All	04/27/2011