

**QUALITY PLAN IMPLEMENTING MATRIX
 CRITERION 2, “PERSONNEL TRAINING AND QUALIFICATION”**

Item No.	Requirement	Source Document*	Implementation Location
General Requirements			
1.	Train and qualify personnel to be capable of performing their assigned work.	10CFR830.122(b)(1) AND DOE O 414.1C, Attachment 2, Section 3(b)(1)	ISD 781-1.0, <i>Conduct of Training Manual</i> , addresses this requirement.
2.	Personnel assigned to work must receive appropriate training prior to performing work.	IP 330.0, LANL Quality Assurance Program, Section 2.2, Process Requirements	ISD 781-1.0, <i>Conduct of Training Manual</i> , addresses this requirement.
3.	Provide continuing training to personnel to maintain their job proficiency. AND This training ensures that personnel are properly equipped to work safely and securely and to achieve and maintain proficiency through the life of the work activity.	10CFR830.122(b)(1) AND DOE O 414.1C, Attachment 2, Section 3(b)(2) AND IP 330.0, LANL Quality Assurance Program, Section 2.2, Process Requirements	ISD 781-1.0, <i>Conduct of Training Manual</i> , addresses this requirement.
Indoctrination and Training			
4.	Training must be developed using a systematic approach tailored to meet the current specified work activity.	IP 330.0, LANL Quality Assurance Program, Section 2.2.1, Training Methodology	ISD 781-1.0, <i>Conduct of Training Manual</i> , addresses this requirement.

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5.	Training methods must include: <ul style="list-style-type: none"> • formal training conducted by qualified instructors, • briefings conducted by management-approved personnel, • required readings, • workshops, • seminars, • awareness training, etc. 	IP 330.0, LANL Quality Assurance Program, Section 2.2.1, Training Methodology	ISD 781-1.0, <i>Conduct of Training Manual</i> , Section 3.2.3, Training Methodology Recommendation, addresses this requirement.
6.	Personnel assigned to perform activities must have the education, knowledge, skills, and abilities (KSAs), experience, and training commensurate with the functions associated with their work.	IP 330.0, LANL Quality Assurance Program, Section 2.2.2, Initial Training Requirements	ISD 781-1.0, <i>Conduct of Training Manual</i> , Section 1.1, Purpose, and Section 3.2.1, Entry-Level Knowledge and Skill Requirements, address this requirement.
7.	Personnel must receive initial training established to address work-specific risks and hazards associated with their roles and responsibilities.	IP 330.0, LANL Quality Assurance Program, Section 2.2.2, Initial Training Requirements	ISD 781-1.0, <i>Conduct of Training Manual</i> , Section 5.1, Initial Training, addresses this requirement.
8.	Indoctrination and training shall be commensurate with scope, complexity, importance of the activities, and the education, experience, and proficiency of the person.	ASME NQA-1-2000, Requirement 2, 200, Indoctrination and Training	EP-DIR-SOP-2011, Revision 0.0, <i>Personnel Training and Indoctrination</i> , Section 2.1, addresses this requirement.
9.	Personnel performing or managing activities affecting quality shall receive indoctrination in: <ul style="list-style-type: none"> • their job responsibilities and authority; • general criteria, including applicable codes and standards; • regulatory commitments; • company procedures; and • quality assurance program requirements. 	ASME NQA-1-2000, Requirement 2, 201, Indoctrination	EP-DIR-SOP-2011, Revision 0.0, <i>Personnel Training and Indoctrination</i> , Section 2.1, addresses this requirement.
10.	The need for a formal training program for personnel performing or managing activities affecting quality shall be determined.	ASME NQA-1-2000, Requirement 2, 202, Training	ISD 781-1.0, <i>Conduct of Training Manual</i> , Section 3.1.1, Training Needs Analysis, and 3.1.2, Job Analysis, address this requirement.

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11.	<p>Training shall be provided, if needed, to achieve initial proficiency, maintain proficiency, and adapt to changes in technology, methods, or job responsibilities.</p> <p style="text-align: center;">AND</p> <p>Responsible managers must identify the qualification requirements, training needs, and proficiency maintenance requirements of personnel assigned to work.</p>	<p>ASME NQA-1-2000, Requirement 2, 202, Training</p> <p style="text-align: center;">AND</p> <p>IP 330.0, LANL Quality Assurance Program, Section 2.2.3, Validation and Verification of Training</p>	<p>ISD 781-1.0, <i>Conduct of Training Manual</i>, Section 5.3.2, Proficiency Requirements, addresses this requirement.</p>
12.	<p>Qualifications and training to meet these requirements must be validated and verified.</p>	<p>IP 330.0, LANL Quality Assurance Program, Section 2.2.3, Validation and Verification of Training</p>	<p>ISD 781-1.0, <i>Conduct of Training Manual</i>, Section 4.1.6, Qualification Verification, addresses this requirement.</p>
13.	<p>Responsible managers must assure that personnel complete refresher training to maintain and enhance KSAs appropriate to work risks and hazards.</p>	<p>IP 330.0, LANL Quality Assurance Program, Section 2.2.6, Refresher Training</p>	<p>ISD 781-1.0, <i>Conduct of Training Manual</i>, Section 4.1.12, Continuing Training, and Section 5.3, Continuing Training, address this requirement.</p>
14.	<p>Refresher training must be developed to assure that proficiency is maintained to continue worker eligibility as necessary.</p>	<p>IP 330.0, LANL Quality Assurance Program, Section 2.2.6, Refresher Training</p>	<p>ISD 781-1.0, <i>Conduct of Training Manual</i>, Section 4.1.12, Continuing Training, and Section 5.3, Continuing Training, address this requirement.</p>
15.	<p>Ineligible personnel are precluded from work activities.</p>	<p>IP 330.0, LANL Quality Assurance Program, Section 2.2.6, Refresher Training</p>	<p>ISD 781-1.0, <i>Conduct of Training Manual</i>, addresses this requirement.</p>

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Qualification Requirements			
16.	<p>The responsible organization shall designate those activities that require qualification of personnel and the minimum requirements for such personnel.</p> <p style="text-align: center;">AND</p> <p>Responsible managers must determine at the start of each activity those individuals who must be qualified and those who must be certified before they are allowed to assume the roles and responsibilities of their position.</p>	<p>ASME NQA-1-2000, Requirement 2, 300, Qualification Requirements</p> <p style="text-align: center;">AND</p> <p>IP 330.0, LANL Quality Assurance Program, Section 2.2.5, Qualification and Certification</p>	<p>ISD 781-1.0, <i>Conduct of Training Manual</i>, Section 3.1.1, Training Needs Analysis, Section 3.1.2, Job Analysis, and Section 3.1.3, Task Analysis, address this requirement.</p>
17.	<p>The responsible organization shall establish written procedures for the qualification of personnel, and for the assurance that only those personnel who meet the requirements are permitted to perform these activities.</p> <p style="text-align: center;">AND</p> <p>A qualification and certification program must be established and implemented in accordance with approved procedures.</p>	<p>ASME NQA-1-2000, Requirement 2, 300, Qualification Requirements</p> <p style="text-align: center;">AND</p> <p>IP 330.0, LANL Quality Assurance Program, Section 2.2.5, Qualification and Certification</p>	<p>ISD 781-1.0, <i>Conduct of Training Manual</i>, addresses this requirement.</p>
18.	<p>Certification must be based on formal evaluation and verification of skills by proficiency testing.</p>	<p>IP 330.0, LANL Quality Assurance Program, Section 2.2.5, Qualification and Certification</p>	<p>ISD 781-1.0, <i>Conduct of Training Manual</i>, Section 5.1.7, Certification Documentation.</p>
Specific Requirements for Qualification of NDE Personnel			
19.	<p>The American Society of Nondestructive Testing Recommended Practice No. SNT-TC-1A, December 1988 Edition, and its applicable Supplements shall supply as requirements to NDE [i.e., radiographic (RT), magnetic particle (MP), ultrasonic (UT), liquid penetrant (PT), electromagnetic (ET), neutron radiographic (NR), leak testing (LT), acoustic emission (AE), and visual testing (VT)].</p>	<p>ASME NQA-1-2000, Requirement 2, 301, Nondestructive Examination (NDE) Requirements</p>	<p>ISD 330-8.0, Inspection, Testing and Acceptance, Section 4.2[F], Personnel Qualification/Certification, addresses this requirement.</p>

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Specific Requirements for Qualification of Inspection and Test Personnel			
20.	The initial capabilities of a candidate shall be determined by an evaluation of the candidate's education, experience, training, and either test results or capability demonstration.	ASME NQA-1-2000, Requirement 2, 302, Inspection and Test	PD-036.000, <i>Qualification of Inspection and Test Personnel</i> , addresses this requirement.
21.	The job performance in inspection and test personnel shall be re-evaluated at periodic intervals not to exceed 3 years.	ASME NQA-1-2000, Requirement 2, 302, Inspection and Test	PD-036.000, <i>Qualification of Inspection and Test Personnel</i> , addresses this requirement.
22.	Re-evaluation shall be by evidence of continued satisfactory performance or re-determination of capability in accordance with the requirements of Section 2 (Indoctrination and Training) of this requirement.	ASME NQA-1-2000, Requirement 2, 302, Inspection and Test	PD-036.000, <i>Qualification of Inspection and Test Personnel</i> , addresses this requirement.
23.	If during this evaluation or at any other time, it is determined by the responsible organization that the capabilities of an individual are not in accordance with the qualification requirements specified for the job, that person shall be removed from that activity until such time as the required capability has been demonstrated.	ASME NQA-1-2000, Requirement 2, 302, Inspection and Test	PD-036.000, <i>Qualification of Inspection and Test Personnel</i> , addresses this requirement.
24.	Any person who has not performed inspection or testing activities in the qualified area for a period of 1 year shall be re-evaluated.	ASME NQA-1-2000, Requirement 2, 302, Inspection and Test	PD-036.000, <i>Qualification of Inspection and Test Personnel</i> , addresses this requirement.
Specific Requirements for Qualification of Lead Auditors			
25.	The prospective Lead Auditor shall be capable of communicating effectively, both in writing and orally.	ASME NQA-1-2000, Requirement 2, 303, Lead Auditor	PD-017.002, <i>Auditor/Lead Auditor Training and Qualification</i> , addresses this requirement.
26.	These [written and oral] skills shall be attested to in writing by the Lead Auditor's employer.	ASME NQA-1-2000, Requirement 2, 303, Lead Auditor	PD-017.002, <i>Auditor/Lead Auditor Training and Qualification</i> , addresses this requirement.

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27.	Prospective Lead Auditors shall receive training to the extent necessary to assure auditing competence including: a) Knowledge and understanding NQA-1-2000 and other nuclear-related codes, standards, regulations, and regulatory guides, as applicable; b) General structure of quality assurance programs as a whole and applicable elements as defined in NQA-1-2000; c) Auditing techniques of examining, questioning, evaluating, and reporting; methods of identifying and following up on corrective action items; and closing out audit findings; d) Planning audits of activities affecting quality; and e) On-the-job training to include applicable elements of the audit program.	ASME NQA-1-2000, Requirement 2, 303, Lead Auditor	PD-017.002, <i>Auditor/Lead Auditor Training and Qualification</i> , addresses this requirement.
28.	Prospective Lead Auditors shall participate in a minimum of five quality assurance audits within a period of time not to exceed 3 years prior to the date of qualification, one audit of which shall be a nuclear quality assurance audit within the year prior to qualification.	ASME NQA-1-2000, Requirement 2, 303, Lead Auditor	PD-017.002, <i>Auditor/Lead Auditor Training and Qualification</i> , addresses this requirement.
29.	Prospective Lead Auditors shall pass an examination [oral, written, practical, or any combination thereof] which shall evaluate comprehension of and ability to apply the body of knowledge identified above.	ASME NQA-1-2000, Requirement 2, 303, Lead Auditor	PD-017.002, <i>Auditor/Lead Auditor Training and Qualification</i> , addresses this requirement.
30.	Lead Auditors shall maintain their proficiency through one or more of the following: regular and active participation in the audit process; review and study of codes, standards, procedures, instructions, and other documents related to quality assurance program and program auditing; or participation in training program(s).	ASME NQA-1-2000, Requirement 2, 303, Lead Auditor	PD-017.002, <i>Auditor/Lead Auditor Training and Qualification</i> , addresses this requirement.
31.	Based on annual assessment, management may extend the qualification, require retraining, or require re-qualification.	ASME NQA-1-2000, Requirement 2, 303, Lead Auditor	PD-017.002, <i>Auditor/Lead Auditor Training and Qualification</i> , addresses this requirement.

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32.	Lead Auditors who fail to maintain their proficiency for a period of 2 years or more shall require re-qualification.	ASME NQA-1-2000, Requirement 2, 303, Lead Auditor	PD-017.002, <i>Auditor/Lead Auditor Training and Qualification</i> , addresses this requirement.
33.	Re-qualification shall include re-training, re-examination, and participation as an Auditor in at least one nuclear quality assurance audit in accordance with the requirements of NQA-1-2000.	ASME NQA-1-2000, Requirement 2, 303, Lead Auditor	PD-017.002, <i>Auditor/Lead Auditor Training and Qualification</i> , addresses this requirement.
Specific Requirements for Qualification of Auditors			
34.	Auditors shall have, or be given, appropriate training or orientation to develop their competence for performing audits. AND Auditors shall be technically qualified in their assigned roles. In addition, they shall have appropriate training or orientation to develop their competence for performing audits.	ASME NQA-1-2000, Requirement 2, 304, Auditors	ISD 330-3.2, <i>Quality Audits</i> , Section 4.2.1[3][D], Quality Audit Team Member Selection, addresses this requirement.
35.	Competence of personnel for performance of the various auditing functions shall be developed by one or more of the following methods: a) Orientation to provide a working knowledge and understanding of NQA-1-2000 and the auditing organization's procedures for implementing audits and reporting results. b) General and specialized training in audit performance where the general training shall include fundamentals, objectives, characteristics, organization, performance, and results of quality auditing and the specialized training shall include methods of examining, questioning, evaluating, and documenting specific audit items and methods of closing out audit findings. c) On-the-job training, guidance, and counseling under the direct supervision of a Lead Auditor. [Such training shall include planning, performing, reporting, and follow-up action involved in conducting audits.]	ASME NQA-1-2000, Requirement 2, 304, Auditors	PD-017.002, <i>Auditor/Lead Auditor Training and Qualification</i> , Section 6.5, Auditor Qualification, addresses this requirement.

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Qualification Certification Requirements			
36.	<p>The qualification of inspection, test, and Lead Auditor personnel shall be certified in writing and include the following information:</p> <ul style="list-style-type: none"> a) Employer's name; b) Identification of person being certified; c) Activities certified to perform; d) Basis of qualification, including: <ul style="list-style-type: none"> • Education, experience, indoctrination, and training, • Test results, where applicable, • Capability requirements; e) Results of periodic evaluation; f) Results of physical examinations, when required; g) Signature of employer's designated representative who is responsible for such certification; and h) Date of certification or re-certification expiration. 	ASME NQA-1-2000, Requirement 2, 400, Certification of Qualification	PD-017.002, <i>Auditor/Lead Auditor Training and Qualification</i> , Appendix 2, Lead Auditor Qualification and Certification Form, and PD-036.000, <i>Qualification of Inspection and Test Personnel</i> , address this requirement.
37.	The responsible organization shall identify any special physical characteristics needed in the performance of each activity, including the need for initial and subsequent physical examination.	ASME NQA-1-2000, Requirement 2, 400, Certification of Qualification	ISD 781-1.0, <i>Conduct of Training Manual</i> , Section 4.1.9, Medical Examination Requirements, addresses this requirement.
38.	The employer may delegate qualification examination activities to an independent certifying agency, but shall retain responsibility for conformance of the examination and its administration.	ASME NQA-1-2000, Requirement 2, 400, Certification of Qualification	Not applicable.
39.	Integrity of the examination shall be maintained by the employer or certifying agency through appropriate confidentiality of files and, where applicable, proctoring of examinations.	ASME NQA-1-2000, Requirement 2, 400, Certification of Qualification	Not applicable.
40.	Copies of the objective evidence regarding the type(s) and content of the examination(s) shall be retained by the employer in accordance with the requirements of NQA-1-2000.	ASME NQA-1-2000, Requirement 2, 400, Certification of Qualification	Not applicable.
Indoctrination, Training, and Qualification Records			
41.	Records of the implementation for indoctrination and training	ASME NQA-1-2000,	ISD 781-1.0, <i>Conduct of Training</i>

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	may take the form of attendance sheets, training logs, or personnel training records.	Requirement 2, 500, Records	<i>Manual</i> , Section 6.1, Training Records, addresses this requirement.
42.	Records of qualification, including re-qualification, for Auditors and Lead Auditors and for inspection and test personnel shall be established and maintained by the employer and for indoctrination and training.	ASME NQA-1-2000, Requirement 2, 500, Records	PD-017.002, <i>Auditor/Lead Auditor Training and Qualification</i> , Section 7.1, QA Records, addresses this requirement.
43.	Documentation requirements for training must be identified by responsible managers and includes training course listings of personnel assigned to the work cross-referenced to the training required for work authorization.	IP 330.0, LANL Quality Assurance Program, Section 2.2.4, Training Documentation and Record Keeping	ISD 781-1.0, <i>Conduct of Training Manual</i> , Section 3.1.2.6, Job Analysis Documentation Requirements, and Section 3.1.3, Task Analysis, address this requirement.
44.	Required training must be documented (e.g., Employee Development System [EDS] database), which provides objective evidence that the required training was delivered and that the personnel trained acknowledge receipt and understanding of the training material.	IP 330.0, LANL Quality Assurance Program, Section 2.2.4, Training Documentation and Record Keeping	ISD 781-1.0, <i>Conduct of Training Manual</i> , Section 6.2, Employee Development System, addresses this requirement.

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