

**QUALITY PLAN IMPLEMENTING MATRIX  
 CRITERION 8, “INSPECTION AND ACCEPTANCE TESTING”**

<b>Item No.</b>	<b>Requirement</b>	<b>Source Document*</b>	<b>Implementation Location</b>
<b>General Requirements</b>			
1.	Inspect and test specified items, services, and processes using established acceptance and performance criteria.	10CFR830.122(h)1 AND DOE O 414.1C(4)(b)(8)(a)	ISD 330-8.0, <i>Inspection, Test and Acceptance</i> , addresses this requirement.
2.	Calibrate and maintain equipment used for inspections and tests.	10CFR830.122(h)2 AND DOE O 414.1C(4)(b)(8)(b)	EP-DIR-SOP-8001, Revision 0.0, <i>Inspection, Test and Acceptance</i> , Section 2.1, Background, addresses this requirement.
<b>Basic Requirements</b>			
3.	Inspections required to verify conformance of an item or activity to specified requirements or continued acceptability of items in service shall be planned and executed.	ASME NQA-1-2000, Requirement 10, Inspection, 100 Basic	ISD 330-8.0, <i>Inspection, Test and Acceptance</i> , Section 4.1, Inspection and Test Planning and Performance, addresses this requirement.
4.	Characteristics subject to inspection and inspection methods shall be specified.	ASME NQA-1-2000, Requirement 10, Inspection, 100 Basic	ISD 330-8.0, <i>Inspection, Test and Acceptance</i> , Section 4.1[J][d], Inspection and Test Planning and Performance, addresses this requirement.
5.	Inspection results shall be documented.	ASME NQA-1-2000, Requirement 10, Inspection, 100 Basic	ISD 330-8.0, <i>Inspection, Test and Acceptance</i> , Section 4.1[L], Inspection and Test Planning and Performance, addresses this requirement.

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6.	<p>Inspection for acceptance shall be performed by qualified persons other than those who performed or directly supervised the work being inspected.</p> <p style="text-align: center;">AND</p> <p>Inspection and acceptance testing activities must be planned, scheduled, and conducted by technically qualified workers who have the authority to access approved information and facilities in order to verify acceptance and in accordance with approved test procedures/plans that include accept/reject criteria.</p>	<p>ASME NQA-1-2000, Requirement 10, Inspection, 100 Basic</p> <p style="text-align: center;">AND</p> <p>IP 330.0, LANL Quality Assurance Program, Subsection 8.2.1, Planning Inspection and Acceptance Testing</p>	<p>EP-DIR-SOP-8001, Revision 0.0, <i>Inspection, Test and Acceptance</i>, Section 2.1, Background, addresses this requirement.</p>
7.	<p>Qualified workers must be responsible for inspection and witnessing/verifying acceptance testing activities by implementing the requirements contained in ISD 330-8, <i>Inspection, Test, and Acceptance</i>.</p>	<p>IP 330.0, LANL Quality Assurance Program, Subsection 8.2.1, Planning Inspection and Acceptance Testing</p>	<p>ISD 330-8.0, <i>Inspection, Test and Acceptance</i>, Section 4.2[B], Personnel Qualification/Certification, addresses this requirement.</p>
8.	<p>The responsible manager must provide appropriate facilities and equipment to trained and qualified workers to enable performance of the inspections or tests.</p>	<p>IP 330.0, LANL Quality Assurance Program, Subsection 8.2.2, Inspection and Acceptance Testing Workers, Facilities, and Equipment</p>	<p>EP-DIR-SOP-8001, Revision 0.0, <i>Inspection, Test and Acceptance</i>, Section 4.1.5, addresses this requirement.</p>
9.	<p>Responsible managers must ensure that detailed test plans and procedures are identified and developed based on the requirements derived from implementing the design process and referenced industrial codes and standards, including LANL engineering standards contained in the LANL Engineering Standards Manual.</p>	<p>IP 330.0, LANL Quality Assurance Program, Subsection 8.2.1, Planning Inspection and Acceptance Testing</p>	<p>ISD 330-8.0, <i>Inspection, Test and Acceptance</i>, Section 3.3, Group Leader, addresses this requirement.</p>

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10.	Approved procedures, drawings, and specifications must determine: <ul style="list-style-type: none"> <li>• Extent of the inspection and/or testing;</li> <li>• Characteristics and the attributes to be inspected and/or tested;</li> <li>• M&amp;TE required and its calibration requirements;</li> <li>• Prerequisites and precautions that enhance or ensure safety;</li> <li>• Parameters and acceptance criteria to be used; and</li> <li>• Documentation required to establish credibility.</li> </ul>	IP 330.0, LANL Quality Assurance Program, Subsection 8.2.1, Planning Inspection and Acceptance Testing	ISD 330-8.0, <i>Inspection, Test and Acceptance</i> , Sections 4.1[B], [D], [J][n], [L][f], and [M] Inspection and Test Planning and Performance, address this requirement.
11.	Tests required to collect data such as for siting or design input, to verify conformance of an item or computer program to specified requirements, or to demonstrate satisfactory performance for service shall be planned and executed.	ASME NQA-1-2000, Requirement 11, Test Control, 100 Basic	ISD 330-8.0, <i>Inspection, Test and Acceptance</i> , Section 4.1[A] and [B], Inspection and Testing Planning and Performance, address this requirement.
12.	These test plans/procedures must require verification of the correct installation and operability of all components, software, and system interlocks important to safety or to the quality of the deliverable.	IP 330.0, LANL Quality Assurance Program, Subsection 8.2.1, Planning Inspection and Acceptance Testing	EP-DIR-SOP-8001, Revision 0.0, <i>Inspection, Test and Acceptance</i> , Section 4.10.5, addresses this requirement.
13.	Test plans must address current equipment listings (e.g., master equipment list [MEL]) including process equipment.	IP 330.0, LANL Quality Assurance Program, Subsection 8.2.1, Planning Inspection and Acceptance Testing	EP-DIR-SOP-8001, Revision 0.0, <i>Inspection, Test and Acceptance</i> , Section 4.10.4, addresses this requirement.
14.	This list must identify all the structures, systems, and components that are important to the administration of the test or inspection.	IP 330.0, LANL Quality Assurance Program, Subsection 8.2.1, Planning Inspection and Acceptance Testing	EP-DIR-SOP-8001, Revision 0.0, <i>Inspection, Test and Acceptance</i> , Section 4.10.4, addresses this requirement.
15.	Characteristics to be tested and test methods to be employed shall be specified.	ASME NQA-1-2000, Requirement 11, Test Control, 100 Basic	ISD 330-8.0, <i>Inspection, Test and Acceptance</i> , Section 4.1[A], [B], and [N], Inspection and Test Planning and Performance, address this requirement.

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16.	Test results shall be documented and their conformance with test requirements and acceptance criteria shall be evaluated. AND The results of these tests must be part of the records requirements for the process.	ASME NQA-1-2000, Requirement 11, Test Control, 100 Basic AND IP 330.0, LANL Quality Assurance Program, Subsection 8.2.1, Planning Inspection and Acceptance Testing	ISD 330-8.0, <i>Inspection, Test and Acceptance</i> , Section 4.1[N], Inspection and Test Planning and Performance, and Section 4.7, Final Review of Quality Documentation, address these requirements.
<b>Inspection Requirements</b>			
17.	Inspection requirements and acceptance criteria shall include specified requirements contained in the applicable design documents or other pertinent technical documents approved by the responsible design organization.	ASME NQA-1-2000, Requirement 10, Inspection 200, Inspection Requirements	ISD 330-8.0, <i>Inspection, Test and Acceptance</i> , Sections 4.1[A] and 4.1[J][h], Inspection and Test Planning and Performance, address this requirement.
<b>Inspection Hold Points</b>			
18.	If mandatory inspection hold points are required beyond which work shall not proceed without the specific consent of the designated representative, the specific hold points shall be indicated in appropriate documents. AND Inspection hold points may be determined by the engineer, the person in charge (PIC), or qualified workers and stipulated in contract or work/change control documents.	ASME NQA-1-2000, Requirement 10, Inspection, 300, Inspection Hold Points AND IP 330.0, LANL Quality Assurance Program, Subsection 8.2.4.2, Hold Points	EP-DIR-SOP-8001, Revision 0.0, <i>Inspection, Test and Acceptance</i> , Section 4.3.1 and 4.3.2, address this requirement.
19.	When inspection hold points are reached beyond which work cannot proceed without the specific consent of the inspector, workers/subcontractors must notify the responsible inspector, who must accept the work before work can resume.	IP 330.0, LANL Quality Assurance Program, Subsection 8.2.4.2, Hold Points	EP-DIR-SOP-8001, Revision 0.0, <i>Inspection, Test and Acceptance</i> , Section 4.3.3 and 4.3.4, address this requirement.

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20.	The inspector, in accordance with identified procedures, must document the results of the inspection.	IP 330.0, LANL Quality Assurance Program, Subsection 8.2.4.2, Hold Points	ISD 330-8.0, <i>Inspection, Test and Acceptance</i> , Section 4.4, Tracking and Reporting Laboratory Quality Inspection Performance Metrics, addresses this requirement.
21.	Consent to waive specified hold points shall be recorded prior to continuation of work beyond the designated hold point. AND Only the organization responsible for the hold point may waive the hold point. AND Waivers of the hold points may be authorized only by the organization establishing the hold point.	ASME NQA-1-2000, Requirement 10, Inspection, 300, Inspection Hold Points AND IP 330.0, LANL Quality Assurance Program, Subsection 8.2.4.2, Hold Points	EP-DIR-SOP-8001, Revision 0.0, <i>Inspection, Test and Acceptance</i> , Sections 4.4.8 and 4.9, addresses this requirement.
<b>Inspection Planning</b>			
22.	Characteristics to be inspected, methods of inspection, and acceptance criteria shall be identified during the inspection planning process.	ASME NQA-1-2000, Requirement 10, Inspection, 401, Planning	ISD 330-8.0, <i>Inspection, Test and Acceptance</i> , Sections 4.1[J][d], [e], and [h], Inspection and Test Planning and Performance, address this requirement.
23.	Sampling procedures, when used, shall be based upon valid statistical methods.	ASME NQA-1-2000, Requirement 10, Inspection, 402, Sampling	ISD 330-8.0, <i>Inspection, Test and Acceptance</i> , Sections 4.1[J][j] and [f], Inspection and Test Planning and Performance, address this requirement.
<b>Work Inspections</b>			
24.	Work inspection activities must be performed by workers trained and qualified in accordance with procedures specifying required qualifications.	IP 330.0, LANL Quality Assurance Program, Subsection 8.2.4.1, Work Inspections	ISD 330-8.0, <i>Inspection, Test and Acceptance</i> , Section 4.2, Personnel Qualification/Certification, addresses this requirement.

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25.	Inspection activities that are required to verify conformance of an item or activity to specified requirements must be planned, with characteristics identified, methods of inspection and acceptance criteria established, and inspection results reported and documented in accordance with approved procedures.	IP 330.0, LANL Quality Assurance Program, Subsection 8.2.4.1, Work Inspections	ISD 330-8.0, <i>Inspection, Test and Acceptance</i> , Section 4.1, Inspection and Test Planning and Performance, addresses this requirement.
26.	Upon discovery of an S/CI, a nonconformance report must be issued in accordance with the requirements of ISD 330-6, <i>Nonconformance Reporting</i> .	IP 330.0, LANL Quality Assurance Program, Subsection 8.2.4.4, Acceptance Testing	ISD 330-9.1, <i>Suspect/Counterfeit Items</i> , Section 8.1, and Attachment 1: Inspection & Testing Department Requirements, addresses this requirement.
<b>Using Measuring and Test Equipment</b>			
27.	When M&TE is required in an inspection or test activity, the selection and procurement process ensures that these items are of the proper type, range, accuracy, and tolerance to provide all information necessary to ensure the viability of the test or inspection.	IP 330.0, LANL Quality Assurance Program, Subsection 8.2.3, Using Measuring and Test Equipment	EP-DIR-SOP-8001, Revision 0.0, <i>Inspection, Test and Acceptance</i> , Section 4.4.11, addresses this requirement.
28.	M&TE for inspection and testing activities conducted by qualified workers, and for subcontractor activities, must be selected and procured in accordance with the requirements contained in the OST 308-00-00, <i>Laboratory Calibration Program</i> , managed by the Manufacturing Quality Division – Standards and Calibration Lab.	IP 330.0, LANL Quality Assurance Program, Subsection 8.2.3, Using Measuring and Test Equipment	EP-DIR-SOP-8001, Revision 0.0, <i>Inspection, Test and Acceptance</i> , Section 4.4.13, addresses this requirement.
29.	At a minimum, all components that require calibration to ensure the safety and viability of the process activity/results must be identified and calibrated by instruments traceable to NIST standards.	IP 330.0, LANL Quality Assurance Program, Subsection 8.2.3, Using Measuring and Test Equipment	EP-DIR-SOP-8001, Revision 0.0, <i>Inspection, Test and Acceptance</i> , Section 4.4.14, addresses this requirement.
30.	M&TE used by workers for inspection and testing activities must be calibrated and controlled.	IP 330.0, LANL Quality Assurance Program, Subsection 8.2.3, Using Measuring and Test Equipment	EP-DIR-SOP-8001, Revision 0.0, <i>Inspection, Test and Acceptance</i> , Section 4.4.17, addresses this requirement.

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31.	M&TE used by subcontractors must be calibrated and controlled in accordance with the Laboratory Calibration Program or the subcontractor's LANL-approved QA program and/or procedures.	IP 330.0, LANL Quality Assurance Program, Subsection 8.2.3, Using Measuring and Test Equipment	OST308-00-00.2, <i>Laboratory Calibration Program</i> , addresses this requirement.
32.	LANL workers must monitor the subcontractor's use and control of M&TE through surveillances and assessments conducted in accordance with approved procedures.	IP 330.0, LANL Quality Assurance Program, Subsection 8.2.3, Using Measuring and Test Equipment	EP-DIR-SOP-8001, Revision 0.0, <i>Inspection, Test and Acceptance</i> , Section 4.4.15, addresses this requirement.
<b>In-Process Inspection</b>			
33.	Qualified inspectors must perform in-process inspections as specified in approved procedures, and the results of these inspections must be documented.	IP 330.0, LANL Quality Assurance Program, Subsection 8.2.4.3, In-Process Inspections	ISD 330-8.0, <i>Inspection, Test and Acceptance</i> , Section 4.1[L], Inspection and Test Planning and Performance, and Section 4.2, Personnel Qualification/Certification, address this requirement.
34.	Monitoring of work processes must be accomplished by qualified workers and the results documented.	IP 330.0, LANL Quality Assurance Program, Subsection 8.2.4.3, In-Process Inspections	ISD 330-8.0, <i>Inspection, Test and Acceptance</i> , Section 4.1[L], Inspection and Test Planning and Performance, and Section 4.2, Personnel Qualification/Certification, address this requirement.
35.	Inspection of items under construction or otherwise in process shall be performed as necessary to verify quality.	ASME NQA-1-2000, Requirement 10, Inspection, 500, In-Process Inspection	ISD 330-8.0, <i>Inspection, Test and Acceptance</i> , Sections 4.1[K][a], [b], and [c], Inspection and Test Planning and Performance, address this requirement.
36.	If inspection of processed items is impossible or disadvantageous, indirect control by monitoring of processing methods, equipment, and personnel shall be provided.	ASME NQA-1-2000, Requirement 10, Inspection, 500, In-Process Inspection	ISD 330-8.0, <i>Inspection, Test and Acceptance</i> , Section 4.1[K][a], Inspection and Test Planning and Performance, addresses this requirement.

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37.	Both inspection and process monitoring shall be provided when control is inadequate without both.	ASME NQA-1-2000, Requirement 10, Inspection, 500, In-Process Inspection	ISD 330-8.0, <i>Inspection, Test and Acceptance</i> , Sections 4.1[c], Inspection and Test Planning and Performance, addresses this requirement.
<b>Final Inspections</b>			
38.	Final inspections shall include a records review of the results and resolution of nonconformances identified by prior inspections.	ASME NQA-1-2000, Requirement 10, Inspection, 601, Resolution of Nonconformances	ISD 330-8.0, <i>Inspection, Test and Acceptance</i> , Section 4.3, Inspection and Test Discrepancies, addresses this requirement.
39.	Completed items shall be inspected for completeness, markings, calibration, adjustments, protection from damage, or other characteristics as required to verify the quality and conformance of the item to specified requirements.	ASME NQA-1-2000, Requirement 10, Inspection, 602, Inspection Requirements	ISD 330-8.0, <i>Inspection, Test and Acceptance</i> , Sections 4.1[J], Inspection and Test Planning and Performance, addresses this requirement.
40.	Any modifications, repairs, or replacements of items performed subsequent to final inspection shall require re-inspection or retest, as appropriate, to verify acceptability.	ASME NQA-1-2000, Requirement 10, Inspection, 603, Modifications, Repairs, or Replacements	ISD 330-8.0, <i>Inspection, Test and Acceptance</i> , Sections 4.1[O], Inspection and Test Planning and Performance, addresses this requirement.
<b>Inspection Records</b>			
41.	Appropriate records shall be established, maintained, and, as a minimum, identify the following: a) item inspected; b) date of inspection; c) inspector; d) type of observation; e) results or acceptability; and f) reference to information on action taken in connection with nonconformances.	ASME NQA-1-2000, Requirement 10, Inspection, 700, Records	EP-DIR-SOP-8001, Revision 0.0, <i>Inspection, Test and Acceptance</i> , Section 4.8.3, addresses this requirement.

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42.	Qualification records of inspection/test workers must be maintained.	IP 330.0, LANL Quality Assurance Program, Subsection 8.2.2, Inspection and Acceptance Testing Workers, Facilities, and Equipment	PD 036.000, <i>Qualification of Inspection and Test Personnel</i> , addresses this requirement.
43.	Inspection and acceptance testing results must be documented in accordance with the procedure or plan used to conduct the inspection or test, consistent with the requirements contained in ISD 330-8, <i>Inspection, Test, and Acceptance</i> .	IP 330.0, LANL Quality Assurance Program, Subsection 8.2.5, Inspection and Test Results Documentation/Records	ISD 330-8.0, <i>Inspection, Testing and Acceptance</i> , Sections 4.1[L] and [N], Inspection and Test Planning and Performance, address this requirement.
<b>Test Control</b>			
44.	Acceptance testing activities must be performed by qualified workers under controlled conditions.	IP 330.0, LANL Quality Assurance Program, Subsection 8.2.4.4, Acceptance Testing	ISD 330-8.0, <i>Inspection, Test and Acceptance</i> , Section 4.2[D], Personnel Qualification/Certification, addresses this requirement.
45.	Test requirements and acceptance criteria shall be provided or approved by the responsible design organization. AND The organization responsible for the design of the item must provide the testing requirements and acceptance criteria developed to ensure proper installation and operability.	ASME NQA-1-2000, Requirement 11, Test Control, 200, Test Requirements (a) AND IP 330.0, LANL Quality Assurance Program, Subsection 8.2.4.4, Acceptance Testing	ISD 330-8.0, <i>Inspection, Test and Acceptance</i> , Section 4.1, Inspection and Test Planning and Performance, addresses this requirement.
46.	This information must be included in specific acceptance testing plans and design package documentation used to conduct the test in accordance with identified procedures for materials testing and acceptance testing.	IP 330.0, LANL Quality Assurance Program, Subsection 8.2.4.4, Acceptance Testing	ISD 330-8.0, <i>Inspection, Test and Acceptance</i> , Section 4.1[N], Inspection and Test Planning and Performance, addresses this requirement.

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47.	Out-of-tolerance conditions must be dispositioned in accordance with the requirements of ISD 330-6, <i>Nonconformance Reporting</i> .	IP 330.0, LANL Quality Assurance Program, Subsection 8.2.4.4, Acceptance Testing	ISD 330-8.0, <i>Inspection, Test and Acceptance</i> , Section 4.3[A], Inspection and Test Discrepancies, addresses this requirement.
48.	Required tests, including, as appropriate, prototype qualification tests, production tests, proof tests prior to installation, construction tests, pre-operational tests, operational tests, and computer program tests such as software design verification, factory acceptance tests, site acceptance tests, and in-use tests shall be controlled.	ASME NQA-1-2000, Requirement 11, Test Control, 200, Test Requirements (a)	EP-DIR-SOP-8001, Revision 0.0, <i>Inspection, Test and Acceptance</i> , Section 4.9.1, addresses this requirement.
49.	Required tests shall be controlled under appropriate environmental conditions using the tools and equipment necessary to conduct the test in a manner to fulfill test requirements and acceptance criteria.	ASME NQA-1-2000, Requirement 11, Test Control, 200, Test Requirements (a)	EP-DIR-SOP-8001, Revision 0.0, <i>Inspection, Test and Acceptance</i> , Section 4.9.2, addresses this requirement.
50.	The tests performed shall obtain the necessary data with sufficient accuracy for evaluation and acceptance.	ASME NQA-1-2000, Requirement 11, Test Control, 200, Test Requirements (a)	EP-DIR-SOP-8001, Revision 0.0, <i>Inspection, Test and Acceptance</i> , Section 4.9.3, addresses this requirement.
51.	Test requirements and acceptance criteria shall be based upon specified requirements contained in applicable design documents, or pertinent technical documents that provide approved requirements.	ASME NQA-1-2000, Requirement 11, Test Control, 200, Test Requirements (b)	EP-DIR-SOP-8001, Revision 0.0, <i>Inspection, Test and Acceptance</i> , Section 4.9.4, addresses this requirement.
52.	If temporary changes to the approved configuration of a facility are required for testing purposes, approval by the design authority is required prior to performing the test.	ASME NQA-1-2000, Requirement 11, Test Control, 200, Test Requirements (c)	EP-DIR-SOP-8001, Revision 0.0, <i>Inspection, Test and Acceptance</i> , Section 4.9.5, addresses this requirement.

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<b>Test Procedures (Other than for Computer Programs)</b>			
53.	Test procedures shall include or reference the test configuration and test objectives.	ASME NQA-1-2000, Requirement 11, Test Control, 300, Test Procedures (Other than for Computer Programs) (a)	ISD 330-8.0, <i>Inspection, Test and Acceptance</i> , Section 4.1[M], Inspection and Test Planning and Performance, and EP-DIR-SOP-8001, <i>Inspection, Test and Acceptance</i> , Section 4.10.1, addresses this requirement.
54.	Test procedures shall also include provisions for assuring that prerequisites and suitable environmental conditions are met, adequate instrumentation is available and used, appropriate tests and equipment are used, and necessary monitoring is performed.	ASME NQA-1-2000, Requirement 11, Test Control, 300, Test Procedures (Other than for Computer Programs) (a)	EP-DIR-SOP-8001, Revision 0.0, <i>Inspection, Test and Acceptance</i> , Section 4.10.2, addresses this requirement.
55.	Prerequisites shall include the following as applicable: calibrated instrumentation, appropriate equipment, trained personnel, condition of test equipment and the item to be tested, suitable environmental conditions, and provisions for data acquisition.	ASME NQA-1-2000, Requirement 11, Test Control, 300, Test Procedures (Other than for Computer Programs) (a and b)	EP-DIR-SOP-8001, Revision 0.0, <i>Inspection, Test and Acceptance</i> , Section 4.10.3, addresses this requirement.
<b>Test Documentation</b>			
56.	Inspection and acceptance testing results must be documented in accordance with the procedure or plan used to conduct the inspection or test, consistent with the requirements contained in ISD 330-8, <i>Inspection, Test and Acceptance</i> .	IP 330.0, LANL Quality Assurance Program, Subsection 8.2.5, Inspection and Test Results Documentation/Records	ISD 330-8.0, <i>Inspection, Test and Acceptance</i> , Section 4.1[N], Inspection and Test Planning and Performance, addresses this requirement.
<b>Computer Program Test Procedures</b>			
57.	Computer program test procedures shall provide for demonstrating the adherence of the computer program to documented requirements.	ASME NQA-1-2000, Requirement 11, Test Control, 400, Computer Program Test Procedures (a)	EP-DIR-SOP-8001, Revision 0.0, <i>Inspection, Test and Acceptance</i> , Section 4.11.1, addresses this requirement.

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58.	For those computer programs used in design activities, computer program test procedures shall provide for assuring that the computer program produces correct results.	ASME NQA-1-2000, Requirement 11, Test Control, 400, Computer Program Test Procedures (a)	EP-DIR-SOP-8001, Revision 0.0, <i>Inspection, Test and Acceptance</i> , Section 4.11.2, addresses this requirement.
59.	For those computer programs used for operational control, computer program test procedures shall provide for demonstrating required performance over the range of operation of the controlled function or process.	ASME NQA-1-2000, Requirement 11, Test Control, 400, Computer Program Test Procedures (a)	EP-DIR-SOP-8001, Revision 0.0, <i>Inspection, Test and Acceptance</i> , Section 4.11.3, addresses this requirement.
60.	The procedures shall also provide for evaluating technical adequacy through comparison of test results from alternative methods such as hand calculations, calculations using comparable proven programs, or empirical data and information from technical literature.	ASME NQA-1-2000, Requirement 11, Test Control, 400, Computer Program Test Procedures (a)	EP-DIR-SOP-8001, Revision 0.0, <i>Inspection, Test and Acceptance</i> , Section 4.11.4, addresses this requirement.
61.	In-use test procedures shall be developed and documented to permit confirmation of acceptable performance of the computer program in the operating system.	ASME NQA-1-2000, Requirement 11, Test Control, 400, Computer Program Test Procedures (b)	EP-DIR-SOP-8001, Revision 0.0, <i>Inspection, Test and Acceptance</i> , Section 4.11.5, addresses this requirement.
62.	In-use test procedures shall be performed after the computer program is installed on a different computer, or when there are significant changes in the operating system.	ASME NQA-1-2000, Requirement 11, Test Control, 400, Computer Program Test Procedures (b)	EP-DIR-SOP-8001, Revision 0.0, <i>Inspection, Test and Acceptance</i> , Section 4.11.6, addresses this requirement.
63.	Periodic in-use manual or automatic self-check in-use tests shall be prescribed and performed for those computer programs in which computer program errors, data errors, computer hardware failures, or instrument drift can affect required performance.	ASME NQA-1-2000, Requirement 11, Test Control, 400, Computer Program Test Procedures (b)	EP-DIR-SOP-8001, Revision 0.0, <i>Inspection, Test and Acceptance</i> , Section 4.11.7, addresses this requirement.

\*Black Type = Mandatory QA requirements from Contract DE-AC52-06NA25396: LANL/NMED Order on Consent; DOE Order 414.1C; 10 CFR 830, Subpart A; ASME NQA-1-2000; and LANL QA Program IP 330.0.

\*Blue Type = Voluntary standard providing QA requirements from ANSI/ASQ E4-2004 for Sampling and Analysis Activities.

Item No.	Requirement	Source Document*	Implementation Location
<b>Test Results</b>			
64.	Test results shall be documented and evaluated by a responsible authority to ensure that test requirements have been satisfied.	ASME NQA-1-2000, Requirement 11, Test Control, 500, Test Results	ISD 330-8.0, <i>Inspection, Test and Acceptance</i> , Section 4.1[N], Inspection and Testing Planning and Performance, and Section 4.7[A], Final Review of Quality Documentation, address this requirement.
65.	Test results for design qualification tests and software design verification shall be evaluated by the responsible design organization.	ASME NQA-1-2000, Requirement 11, Test Control, 500, Test Results	EP-DIR-SOP-8001, Revision 0.0, <i>Inspection, Test and Acceptance</i> , Section 4.12.3, addresses this requirement.
<b>Test Records</b>			
66.	Test records shall be established and maintained to indicate the ability of the item or computer program to satisfactorily perform its intended function or to meet its documented requirements.	ASME NQA-1-2000, Requirement 11, Test Control, 600, Test Records	ISD 330-8.0, <i>Inspection, Test and Acceptance</i> , Section 4.1[N], Inspection and Testing Planning and Performance, addresses this requirement.

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