QUALITY PLAN IMPLEMENTING MATRIX
CRITERION 7, "PROCUREMENT"

Item No.	Requirement	Source Document*	Implementation Location
	General Requirements		
1.	Procure items and services that meet established requirements and perform as specified.	10CFR830.122(g)(1) AND DOE O 414.1C(7)(a)	ISD 840-1.1, *Procurement Quality*, Sections 4.1, 4.5, and 4.8, addresses this requirement.
2.	Evaluate and select prospective suppliers on the basis of specified criteria.	10CFR830.122(g)(2) AND DOE O 414.1C(7)(b)	ISD 840-1.1, *Procurement Quality,* Section 4.12, and ISD 330-4.0, *Supplier Evaluations*, address this requirement.
3.	Establish and implement processes to ensure that approved suppliers continue to provide acceptable items and services.	10CFR830.122(g)(3) AND DOE O 414.1C(7)(b)	ISD 330-4.0, *Supplier Evaluations,* Sections 4.6 and 4.17, address this requirement.
	Basic Requirements		
4.	Applicable design bases and other requirements necessary to assure adequate quality shall be included or referenced in documents for procurement of items and services.	ASME NQA-1-2000, Requirement 4, Procurement Document Control, 100, Basic	ISD 840-1.1, *Procurement Quality,* Sections 4.4 and 4.5, address this requirement.
5.	To the extent necessary, procurement documents shall require suppliers to have a quality assurance program consistent with the applicable requirements of ASME NQA-1-2000.	ASME NQA-1-2000, Requirement 4, Procurement Document Control, 100, Basic	**ISD 840-1.2, *Procurement Quality,* addresses this requirement.

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6.	The procurement of items and services shall be controlled to assure conformance with specified requirements.	ASME NQA-1-2000, Requirement 7, Control of Purchased Items and Services, 100, Basic	ISD 840-1.1, *Procurement Quality,* Section 8.2, Attachment 2, addresses this requirement.
7.	Such control shall provide for the following, as appropriate: • source evaluation and selection, • evaluation of objective evidence of quality furnished by the supplier, • source inspection, • audit, and • examination of items or services upon delivery or completion.	ASME NQA-1-2000, Requirement 7, Control of Purchased Items and Services, 100, Basic	ISD 840-1.1, *Procurement Quality,* Section 8.2, Attachment 2, addresses this requirement.
	Procurement Planning		
8.	Procurement activities must be planned and documented at the earliest practical time to provide interfaces for ensuring compatibility and uniformity during the procurement process.	IP 330.0, LANL Quality Assurance Program, Subsection 7.2.1, Controlling Procurement	ISD 840-1.1, *Procurement Quality,* Section 4.4.4, requires reviews and approvals by designated LANL SMEs. Therefore, sufficient time must be allocated to ensure these approvals are completed.
9.	Procurement activities must be performed in accordance with documented procedures to ensure that a systematic approach is used in procurement processes.	IP 330.0, LANL Quality Assurance Program, Subsection 7.2.1, Controlling Procurement	ISD 840-1.1, *Procurement Quality,* addresses this requirement.
10.	Before initiating procurement, qualified workers must determine what technical and quality requirements are to be applied to support elimination or mitigation of the associated risks/hazards, and for accomplishing the desired level of quality.	IP 330.0, LANL Quality Assurance Program, Subsection 7.2.3, Initiating and Controlling Procurement Documents	ISD 840-1.1, *Procurement Quality,* Sections 4.4, 4.5, and 4.8, address this requirement.

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	Procurement Document Control		
11.	Procurement documents shall include a statement of the scope of work to be performed by the supplier.	ASME NQA-1-2000, Requirement 4, Procurement Document Control, 201, Scope of Work	ISD 840-1.1, *Procurement Quality,* Section 4.6, addresses this requirement.
12.	Technical requirements shall be specified in the procurement documents.	ASME NQA-1-2000, Requirement 4, Procurement Document Control, 202, Technical Requirements	ISD 840-1.1, *Procurement Quality,* Sections 4.4 and 4.5, address this requirement.
13.	These requirements shall be specified, as appropriate by reference to specific drawings, specifications, codes, standards, regulations, procedures, or instructions, including revisions thereto that describe the items or services to be furnished.	ASME NQA-1-2000, Requirement 4, Procurement Document Control, 202, Technical Requirements	ISD 840-1.1, *Procurement Quality,* Sections 4.4 and 4.5, address this requirement.
14.	The procurement documents shall identify appropriate test, inspection, and acceptance criteria for determining acceptability of the item or service.	ASME NQA-1-2000, Requirement 4, Procurement Document Control, 202, Technical Requirements	ISD 840-1.1, *Procurement Quality,* Sections 4.4.6 and 8.2 Attachment 2, address this requirement.
15.	Quality assurance program requirements shall be specified in the procurement documents.	ASME NQA-1-2000, Requirement 4, Procurement Document Control, 203, Quality Requirements	ISD 840-1.1, *Procurement Quality,* Section 4.8, addresses this requirement.

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16.	A procurement document comes under control when it is initially released for review.	IP 330.0, LANL Quality Assurance Program, Subsection 7.2.3, Initiating and Controlling Procurement Documents	ISD 840-1.1, *Procurement Quality,* Section 6.3, addresses this requirement.
17.	These requirements shall be consistent with importance and/or complexity of the item or service being procured. AND The extent of procurement control must appropriately reflect the relative importance, risks, and hazards associated with the items or services being procured.	ASME NQA-1-2000, Requirement 4, Procurement Document Control, 203, Quality Requirements AND IP 330.0, LANL Quality Assurance Program, Subsection 7.2.1, Controlling Procurement	ISD 840-1.1, *Procurement Quality,* Section 4.2, addresses this requirement.
18.	Control must be consistent with the requirements imposed upon the supplier by the procurement documents.	IP 330.0, LANL Quality Assurance Program, Subsection 7.2.1, Controlling Procurement	ISD 840-1.1, *Procurement Quality,* Section 4.2, addresses this requirement.
19.	Objective evidence of compliance with applicable quality and technical requirements is verified via documented inspections and tests (e.g., source inspections, receipt inspections, post installation testing) conducted in accordance with approved procedures.	IP 330.0, LANL Quality Assurance Program, Subsection 7.2.1, Controlling Procurement	ISD 840-1.1, *Procurement Quality,* Sections 4.4.6 and 8.2 Attachment 2, address this requirement.
20.	Suppliers of ML-1, ML-2, and ML-3 items and services (on-site and off-site) must work to one of the following QA controls: • The supplier's QA program as documented on the Institutional Evaluated Suppliers List (IESL) and invoked in applicable contract documents. • Commercial grade items dedication process as defined in ISD 330-10, *Commercial Grade Item Dedication* (for items only). • A Compensatory Action Plan that has been approved by the Quality Assurance – Procurement Quality Group (QA-PQ) as defined in ISD 840-1, *Procurement Quality.*	IP 330.0, LANL Quality Assurance Program, Subsection 7.2.1, Controlling Procurement	**ISD 840-1.2, *Procurement Quality,* Sections 4.2, 4.8, 4.12, 4.13, and 8.5 Attachment 6, address this requirement.
21.	Controls must be formalized for specifying and awarding items or services to	IP 330.0, LANL Quality	**ISD 840-1.2,

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	other LANL divisions or DOE NNSA facilities consistent with controls imposed on external suppliers.	Assurance Program, Subsection 7.2.1, Controlling Procurement	*Procurement Quality,* addresses this requirement.
22.	The procurement documents shall require the supplier to incorporate appropriate quality assurance program requirements in sub-tier procurement documents. AND LANL procurement documents must require that applicable technical and quality requirements invoked on suppliers are, in turn, flowed-down to their sub-tier suppliers.	ASME NQA-1-2000, Requirement 4, Procurement Document Control, 203, Quality Requirements AND IP 330.0, LANL Quality Assurance Program, Subsection 7.2.6, Procuring Items and Services	**ISD 840-1.2, *Procurement Quality,* addresses these requirements.
23.	The procurement documents shall provide for access to the supplier's and sub-tier supplier's facilities and records for surveillance, inspection, or audit by the purchaser, its designated representative, and others authorized by the purchaser.	ASME NQA-1-2000, Requirement 4, Procurement Document Control, 204, Right of Access	**ISD 840-1.2, *Procurement Quality,* addresses these requirements.
24.	The procurement documents shall identify the documentation required to be submitted for information, review, or approval by the purchaser.	ASME NQA-1-2000, Requirement 4, Procurement Document Control, 205 Documentation Requirements	ISD 840-1.1, *Procurement Quality,* Section 4.16, addresses this requirement.
25.	The time of submittal shall also be established.	ASME NQA-1-2000, Requirement 4, Procurement Document Control, 205 Documentation Requirements	**ISD 840-1.2, *Procurement Quality,* addresses these requirements.

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26.	When the purchaser requires the supplier to maintain specific records, the retention times and disposition requirements shall be prescribed.	ASME NQA-1-2000, Requirement 4, Procurement Document Control, 205 Documentation Requirements	**ISD 840-1.2, *Procurement Quality,* addresses these requirements.
27.	The procurement documents shall specify the purchaser's requirements for the supplier's reporting of nonconformances.	ASME NQA-1-2000, Requirement 4, Procurement Document Control, 206, Nonconformances	ISD 840-1.1, *Procurement Quality,* Section 4.15, addresses this requirement.
28.	The procurement documents shall specify the supplier's requirements to identify spare and replacement parts or assemblies and the related data required for ordering these parts or assemblies.	ASME NQA-1-2000, Requirement 4, Procurement Document Control, 207, Spare and Replacement Parts	**ISD 840-1.2, *Procurement Quality,* addresses these requirements.
29.	A review of the procurement documents, and changes thereto, shall be made and documented prior to award to assure that documents transmitted to prospective supplier(s) include appropriate provisions to assure that items or services will meet the specified requirements.	ASME NQA-1-2000, Requirement 4, Procurement Document Control, 300, Procurement Document Review	ISD 840-1.1, *Procurement Quality,* Section 4.4.4, addresses this requirement.
30.	Technical or quality assurance program changes made as a result of bid evaluations or negotiations shall be incorporated into the procurement documents prior to their issuance to the supplier.	ASME NQA-1-2000, Requirement 4, Procurement Document Control, 300, Procurement Document Review	ISD 840-1.1, *Procurement Quality,* Section 4.11.3, addresses this requirement.
31.	In addition, when purchasing items or services requiring imposition of regulatory codes or standards, consistent institutional requirements must be contractually invoked (e.g., technical standards, quality standards, and critical functional and operational characteristics).	IP 330.0, LANL Quality Assurance Program, Subsection 7.2.6, Procuring Items and Services	ISD 840-1.1, *Procurement Quality,* Sections 4.4, 4.5, and 4.8, address this requirement.
32.	Subcontractors, when required to purchase items and materials for work, must	IP 330.0, LANL Quality	ISD 330-4.0, *Supplier*

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	maintain procurement quality controls evaluated by qualified LANL workers for compliance with these requirements.	Assurance Program, Subsection 7.2.6, Procuring Items and Services	*Evaluations,* addresses this requirement.
	Procurement Document Review		
33.	Procurement document review shall be performed by personnel who have access to pertinent information and who have an adequate understanding of the requirements and intent of the procurement documents. AND The procedures and procurement documents must be subject to review by qualified workers before use.	ASME NQA-1-2000, Requirement 4, Procurement Document Control, 300, Procurement Document Review AND IP 330.0, LANL Quality Assurance Program, Subsection 7.2.6, Procuring Items and Services	ISD 840-1.1, *Procurement Quality,* Section 4.4.4, addresses this requirement.
34.	Procurement document changes affecting the technical or quality assurance program requirements shall be subject to the same degree of control as utilized in the preparation of the original documents. AND Changes to the procurement document subsequent to initial release for review must be subjected to a review and approval process commensurate with the original document.	ASME NQA-1-2000, Requirement 4, Procurement Document Control, 400, Procurement Document Changes AND IP 330.0, LANL Quality Assurance Program, Subsection 7.2.3, Initiating and Controlling Procurement Documents	ISD 840-1.1, *Procurement Quality,* Sections 4.11.3 and 4.14, address this requirement.

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35.	The performance of the review and approval process must be documented for each change.	IP 330.0, LANL Quality Assurance Program, Subsection 7.2.3, Initiating and Controlling Procurement Documents	ISD 840-1.1, *Procurement Quality,* Section 4.14, addresses this requirement.
36.	In the process of reviewing and approving procurement documents, technical subject matter experts (SMEs) and quality SMEs must ensure the incorporation of necessary specifications, codes, testing requirements, reports, acceptance criteria, and/or other qualifying criteria.	IP 330.0, LANL Quality Assurance Program, Subsection 7.2.4, Reviewing and Approving Procurement Documents	ISD 840-1.1, *Procurement Quality,* Sections 3.3 and 3.4, address this requirement.
Control of Purchased Items and Services			
37.	Prior to award of a contract, the purchaser shall evaluate the supplier's capability to provide items or services in accordance with the requirements of the procurement documents.	ASME NQA-1-2000, Requirement 7, Control of Purchased Items and Services, 200, Supplier Evaluation and Selection	ISD 840-1.1, *Procurement Quality,* Section 4.12.1, and ISD 330-4.0, *Supplier Evaluations,* address this requirement.
38.	Initial selection and continued qualification of subcontractors, vendors, and/or suppliers must be based on an evaluation of their ability to provide items and/or services that meet requirements specified in applicable contract procurement documents.	IP 330.0, LANL Quality Assurance Program, Subsection 7.2.5, Selecting Subcontractors, Vendors, and/or Suppliers	ISD 330-4.0, *Supplier Evaluations,* addresses this requirement.
39.	Selection must be coordinated among the requesting organization, and technical and quality reviewers, and the LANL procurement division.	IP 330.0, LANL Quality Assurance Program, Subsection 7.2.5, Selecting Subcontractors, Vendors, and/or Suppliers	**ISD 840-1.2, *Procurement Quality,* addresses these requirements.

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40.	Supplier evaluation and selection and the results therefrom shall be documented and shall include one or more of the following: a) Supplier's history of providing an identical or similar product that performs satisfactorily in actual use. The supplier's history shall reflect current capability. b) Supplier's current quality records supported by documented qualitative and quantitative information that can be objectively evaluated. c) Supplier's technical and quality capability as determined by a direct evaluation of the facilities, personnel, and the implementation of the supplier's quality assurance program. AND Using the graded approach, subcontractors, vendors, and/or suppliers must be evaluated against formally established evaluation criteria for the following: a) Capability and/or history of providing the same or similar item or services; b) Acceptability of the subcontractor's, vendor's and/or supplier's quality records to support an objective evaluation. c) Technical and quality capability as determined by evaluation of the subcontractor's, vendor's, and/or supplier's facility and the implementation of their quality assurance program.	ASME NQA-1-2000, Requirement 7, Control of Purchased Items and Services, 200, Supplier Evaluation and Selection AND IP 330.0, LANL Quality Assurance Program, Subsection 7.2.5, Selecting Subcontractors, Vendors, and/or Suppliers	ISD 330-4.0, *Supplier Evaluations,* Sections 4.3 and 4.4, address these requirements.
41.	The evaluation and approval of suppliers must be conducted in accordance with ISD 330-4, *Supplier Evaluations*.	IP 330.0, LANL Quality Assurance Program, Subsection 7.2.5, Selecting Subcontractors, Vendors, and/or Suppliers	ISD 840-1.1, *Procurement Quality,* Section 4.12.1, addresses this requirement.
42.	The item or services will not be accepted until the supplier has been approved.	IP 330.0, LANL Quality Assurance Program, Subsection 7.2.5, Selecting Subcontractors, Vendors, and/or Suppliers	ISD 840-1.1, *Procurement Quality,* Section 4.12.1, addresses this requirement.

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43.	If bids are solicited, the bid evaluation shall include a determination of the supplier's capability to conform to the technical and quality assurance requirements.	ASME NQA-1-2000, Requirement 7, Control of Purchased Items and Services, 300, Bid Evaluation	ISD 840-1.1, *Procurement Quality,* Section 4.11, addresses this requirement.
44.	Prior to the award of the contract, the purchaser shall resolve or obtain commitments to resolve unacceptable technical and quality assurance conditions resulting from the bid evaluation.	ASME NQA-1-2000, Requirement 7, Control of Purchased Items and Services, 300, Bid Evaluation	ISD 840-1.1, *Procurement Quality,* Section 4.11, addresses this requirement.
Control of Supplier-Generated Documents			
45.	Control shall be implemented to assure that the submittal and evaluation of supplier-generated documents are accomplished in accordance with the procurement document requirements.	ASME NQA-1-2000, Requirement 7, Control of Purchased Items and Services, 400, Control of Supplier-Generated Documents	ISD 840-1.1, *Procurement Quality,* Section 4.16, addresses this requirement.
46.	These controls shall provide for the acquisition, processing, and recorded evaluation of the quality assurance, technical, inspection, and test documentation or data against acceptance criteria.	ASME NQA-1-2000, Requirement 7, Control of Purchased Items and Services, 400, Control of Supplier-Generated Documents	ISD 840-1.1, *Procurement Quality,* Sections 4.4.6 and 8.2, Attachment 2, address this requirement.
Acceptance of Items or Services			
47.	Prior to offering the item or service for acceptance, the supplier shall verify that the item or service being furnished complies with the procurement requirements.	ASME NQA-1-2000, Requirement 7, Control of Purchased Items and Services, 501, Acceptance of Item or Service - General	ISD 840-1.1, *Procurement Quality,* Section 8.2, Attachment 2, addresses this requirement.

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48.	Where required by code, regulation, or contract requirement, documentary evidence that items conform to procurement requirements shall be available at the nuclear facility site prior to installation or use.	ASME NQA-1-2000, Requirement 7, Control of Purchased Items and Services, 501, Acceptance of Item or Service - General	**ISD 840-1.2, *Procurement Quality,* addresses these requirements.
49.	Purchaser methods used to accept an item or service from a supplier shall be a Supplier Certificate of Conformance, source verification, receiving inspection, or post-installation test at the nuclear facility site, or a combination of these methods.	ASME NQA-1-2000, Requirement 7, Control of Purchased Items and Services, 502, Methods of Acceptance	ISD 840-1.1, *Procurement Quality,* Section 8.2, Attachment 2, addresses this requirement.

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50.	When a Certificate of Conformance is used, the following minimum criteria shall be met: a) The certificate shall identify the purchased material or equipment, such as by the purchase order number. b) The certificate shall identify the specific procurement requirements met by the purchased material or equipment, such as codes, standards, and other specifications. [NOTE: This may be accomplished by including a list of the specific requirements or by providing, on-site, a copy of the purchase order and the procurement specifications or drawings, together with a suitable certificate.] The procurement requirements identified shall include any approved changes, waivers, or deviations applicable to the subject material or equipment. c) The certificate shall identify any procurement requirements that have not been met together with an explanation and the means for resolving the nonconformances. d) The certificate shall be signed or otherwise authenticated by a person who is responsible for this quality assurance function and whose function and position are described in the purchaser's or supplier's quality assurance program. e) The certification system, including the procedures to be followed in filling out a certificate and the administrative procedures for review and approval of the certificates, shall be described in the purchaser's or supplier's quality assurance program. f) Means shall be provided to verify the validity of supplier certificates and the effectiveness of the certification system, such as during the performance of audits of the supplier or independent inspection or test of the items. Such verification shall be conducted by the purchaser at intervals commensurate with the supplier's past quality performance.	ASME NQA-1-2000, Requirement 7, Control of Purchased Items and Services, 503, Certificate of Conformance	ISD 840-1.1, *Procurement Quality,* Section 8.2, Attachment 2, addresses this requirement.

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51.	When source verification is used, it shall be performed at intervals consistent with the importance and complexity of the item or service, and shall include monitoring, witnessing, or observing selected activities.	ASME NQA-1-2000, Requirement 7, Control of Purchased Items and Services, 504, Source Verification	ISD 840-1.1, *Procurement Quality,* Section 8.2, Attachment 2, addresses this requirement.
52.	Source verification shall be implemented in accordance with plans to perform inspections, examinations, or tests at predetermined points.	ASME NQA-1-2000, Requirement 7, Control of Purchased Items and Services, 504, Source Verification	ISD 840-1.1, *Procurement Quality,* Section 8.2, Attachment 2, addresses this requirement.
53.	Upon purchaser acceptance of source verification, documented evidence of acceptance shall be furnished to the receiving destination of the item, to the purchaser and to the supplier.	ASME NQA-1-2000, Requirement 7, Control of Purchased Items and Services, 504, Source Verification	ISD 840-1.1, *Procurement Quality,* Section 8.2, Attachment 2, addresses this requirement.
54.	When receiving inspection is used, purchased items shall be inspected as necessary to verify conformance to specified requirements, taking into account source verification and audit activities and the demonstrated quality performance of the supplier.	ASME NQA-1-2000, Requirement 7, Control of Purchased Items and Services, 505, Receiving Inspection	ISD 840-1.1, *Procurement Quality,* Section 8.2, Attachment 2, addresses this requirement.
55.	Receiving inspection shall verify by objective evidence such features as: • configuration; • identification; • dimensional, physical, and other characteristics; • freedom from shipping damage; and • cleanliness.	ASME NQA-1-2000, Requirement 7, Control of Purchased Items and Services, 505, Receiving Inspection	ISD 840-1.1, *Procurement Quality,* Section 8.2, Attachment 2, addresses this requirement.
56.	Receiving inspection shall be coordinated with review of supplier documentation when procurement documents require such documentation to be furnished prior to receiving inspection.	ASME NQA-1-2000, Requirement 7, Control of Purchased Items and Services, 505, Receiving Inspection	ISD 840-1.1, *Procurement Quality,* Section 8.2, Attachment 2, addresses this requirement.

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57.	Source/receipt inspection must be conducted for work in accordance with requirements contained in ISD 330-8, *Inspection, Test, and Acceptance.*	IP 330.0, LANL Quality Assurance Program, Subsection 7.2.2, Specifying Criteria for Acceptance of Items and Services	ISD 840-1.1, *Procurement Quality,* addresses this requirement.
58.	Before releasing items or material for use, workers must be provided access to quality verification documentation (e.g., receipt inspection reports and supplier documentation).	IP 330.0, LANL Quality Assurance Program, Subsection 7.2.2, Specifying Criteria for Acceptance of Items and Services	**ISD 840-1.2, *Procurement Quality,* addresses these requirements.
59.	When post-installation testing is used, post-installation test requirements and acceptance documentation shall be mutually established by the purchaser and supplier.	ASME NQA-1-2000, Requirement 7, Control of Purchased Items and Services, 506, Post-Installation Testing	**ISD 840-1.2, *Procurement Quality,* addresses these requirements.
60.	In cases involving procurement of services only, such as third-party inspection; engineering and consulting services; auditing; and installation, repair, overhaul, or maintenance work, the purchaser shall accept the service by any or all of the following methods: a) technical verification of data produced; b) surveillance and/or audit of the activity; and c) review of objective evidence for conformance to the procurement document requirements.	ASME NQA-1-2000, Requirement 7, Control of Purchased Items and Services, 507, Acceptance of Services Only	ISD 840-1.1, *Procurement Quality,* Section 8.2, Attachment 2, addresses this requirement.

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	Control of Supplier Nonconformances		
61.	Methods for control and disposition of supplier nonconformances for items and services that do not meet procurement documentation requirements shall include the following: a) evaluation of nonconforming items; b) submittal of nonconformance notice to purchaser by supplier as directed by the purchaser. These submittals shall include supplier-recommended disposition (e.g., use-as-is or repair) and technical justification. Nonconformances to the procurement requirements or purchaser-approved documents, which consist of one or more of the following, shall be submitted to the purchaser for approval of the recommended disposition: o technical or material requirement is violated; o requirement in supplier documents, which has been approved by the purchaser, is violated; o nonconformance cannot be corrected by continuation of the original manufacturing process or by rework; and o the item does not conform to the original requirements even though the item can be restored to a condition such that the capability of the item to function is unimpaired; c) purchaser disposition of supplier recommendation; d) verification of the implementation of the disposition; and e) maintenance of records of supplier-submitted nonconformances.	ASME NQA-1-2000, Requirement 7, Control of Purchased Items and Services, 600, Control of Supplier Nonconformances	ISD 840-1.1, *Procurement Quality,* Section 4.15, addresses this requirement.
62.	Items or materials that are identified as not conforming to requirements must be documented using a nonconformance control process (ISD 330-6, *Nonconformance Reporting*).	IP 330.0, LANL Quality Assurance Program, Subsection 7.2.2, Specifying Criteria for Acceptance of Items and Services	ISD 840-1.1, *Procurement Quality,* Section 4.17.8, 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.
**Requirement is not currently in the location specified; however, it will be included within the next revision of the document.

Item No.	Requirement	Source Document*	Implementation Location
	Commercial Grade Items		
63.	Where the design utilizes commercial grade items, the purchaser can utilize the following requirements as an acceptable alternative to other requirements of this section for procuring and accepting items: a) The commercial grade item is identified in an approved design output document. An alternate commercial grade item may be applied, provided the cognizant design organization provides verification that the alternate commercial grade item will perform the intended function and will meet design requirements applicable to both the replaced item and its application. b) Source evaluation and selection, where determined necessary by the purchaser based on complexity and importance to safety shall be in accordance with the requirements of ASME NQA-1-2000. c) Commercial grade items shall be identified in the purchase order by the manufacturer's published product description (e.g., catalog number). d) One or a combination of the following methods shall be utilized to provide reasonable assurance that the item meets the acceptance criteria for the characteristics identified to be verified for acceptance: o Special test(s) or inspection(s) or both; o Commercial grade survey of the supplier; o Source verification; o Acceptable supplier/item performance records. e) Prior to acceptance of a commercial grade item, the purchaser shall determine that: o Damage was not sustained during shipment; o The item has satisfied the specified acceptance criteria; and o Specified documentation, as applicable to the item, was received and is acceptable.	ASME NQA-1-2000, Requirement 7, Control of Purchased Items and Services, 700, Commercial Grade Items	**ISD 840-1.2, *Procurement Quality,* addresses these requirements.

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**Requirement is not currently in the location specified; however, it will be included within the next revision of the document.

Item No.	Requirement	Source Document*	Implementation Location
64.	Procedures must be established for setting requirements for inspecting, testing, and reviewing quality verification documents to establish the acceptability of items to be used in ML-1, ML-2, and ML-3 applications.	IP 330.0, LANL Quality Assurance Program, Subsection 7.2.7, Commercial Grade Items and LANL Customized Items	**ISD 840-1.2, *Procurement Quality,* addresses these requirements.
65.	Dedication (qualification) procedures must be established to address the use of ML-1, ML-2, and ML-3 SSCs that were procured/obtained from un-qualified sources and/or that were produced without evidence of requisite QA controls.	IP 330.0, LANL Quality Assurance Program, Subsection 7.2.7, Commercial Grade Items and LANL Customized Items	**ISD 840-1.2, *Procurement Quality,* addresses these requirements.
66.	The items subject to dedication procedures include: • Commercial Grade Items (ISD 330-10, *Commercial Grade Item Dedication)*, and • LANL Customized Items.	IP 330.0, LANL Quality Assurance Program, Subsection 7.2.7, Commercial Grade items and LANL Customized Items	**ISD 840-1.2, *Procurement Quality,* addresses these requirements.
Laboratory QA/QC - General Requirements			
67.	ERSS shall submit all samples for laboratory analysis to accredited contract laboratories.	NMED/LANL Order on Consent, Section IX.C, Chemical Analyses	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.1.1, General, addresses this requirement.
68.	The laboratories shall use the most recent EPA and industry-accepted extraction and analytical methods for chemical analyses for target analytes as the testing methods for each medium sampled.	NMED/LANL Order on Consent, Section IX.C, Chemical Analyses	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.1.2, General, 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.
**Requirement is not currently in the location specified; however, it will be included within the next revision of the document.

Item No.	Requirement	Source Document*	Implementation Location
69.	ERSS shall submit a list of analytes and analytical methods to the Department, for review and written approval as part of each site-specific investigation, corrective action, or monitoring work plan.	NMED/LANL Order on Consent, Section IX.C, Chemical Analyses	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.1.3, General, addresses this requirement.
70.	The detection limits for each method shall be less than applicable background, screening, and regulatory cleanup levels.	NMED/LANL Order on Consent, Section IX.C, Chemical Analyses	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.1.4, General, addresses this requirement.
71.	The preferred method detection limits are a maximum of 20 percent of the cleanup, screening, or background levels.	NMED/LANL Order on Consent, Section IX.C, Chemical Analyses	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.1.4, General, addresses this requirement.
72.	Analyses conducted with detection limits that are greater than applicable background, screening, and regulatory cleanup levels shall be considered data quality exceptions and the reasons for the elevated detection limits shall be reported to the Department.	NMED/LANL Order on Consent, Section IX.C, Chemical Analyses	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.1.5, General, addresses this requirement.
73.	These data cannot be used for statistical analyses.	NMED/LANL Order on Consent, Section IX.C, Chemical Analyses	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.1.5, General, 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.
**Requirement is not currently in the location specified; however, it will be included within the next revision of the document.

Item No.	Requirement	Source Document*	Implementation Location
74.	All analytical data (non-detects, estimated blanks, and detects) shall be included in the electronic copy of the investigation report in Microsoft™ Excel format with qualifiers as attached from the analytical laboratory.	NMED/LANL Order on Consent, Section IX.C, Chemical Analyses	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.1.6, General, addresses this requirement.
75.	The summary tables shall include only detects of the data based on the corresponding qualifiers.	NMED/LANL Order on Consent, Section IX.C, Chemical Analyses	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.1.7, General, addresses this requirement.
76.	ERSS shall not censor the data based on detection limits, quantitation limits, or measurement uncertainty.	NMED/LANL Order on Consent, Section IX.C, Chemical Analyses	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.1.8, General, addresses this requirement.
Laboratory QA/QC Requirements			
77.	The requirements for the following laboratory QA/QC procedures shall be considered the minimum QA/QC standards for the laboratories employed by ERSS that provide analytical services for environmental investigation, corrective action, and monitoring activities conducted at the Facility: a) Quality Assurance Procedures b) Equipment Calibration Procedures and Frequency c) Laboratory QA/QC Samples d) Laboratory Deliverables.	NMED/LANL Order on Consent, Section IX.C.1, Laboratory QA/QC Requirements	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.2.1, Laboratory QA/QC Requirements, 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.
**Requirement is not currently in the location specified; however, it will be included within the next revision of the document.

Item No.	Requirement	Source Document*	Implementation Location
78.	ERSS shall provide the names of the contract analytical laboratories and copies of the laboratory quality assurance manuals to the Department within forty-five (45) days of awarding the contract for analytical services to any contract laboratory.	NMED/LANL Order on Consent, Section IX.C.1, Laboratory QA/QC Requirements	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.2.2, Laboratory QA/QC Requirements, addresses this requirement.
Quality Assurance Procedures			
79.	Contract analytical laboratories shall maintain internal quality assurance programs in accordance with EPA and industry-wide accepted practices and procedures.	NMED/LANL Order on Consent, Section IX.C.1a, Quality Assurance Procedures	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.3.1, Quality Assurance Procedures, addresses this requirement.
80.	At a minimum, the laboratories shall use a combination of standards, blanks, surrogates, duplicates, matrix spike/matrix spike duplicates (MS/MSD), blank spike/blank spike duplicates (BS/BSD), and laboratory control samples to demonstrate analytical QA/QC.	NMED/LANL Order on Consent, Section IX.C.1a, Quality Assurance Procedures	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.3.2, Quality Assurance Procedures, addresses this requirement.
81.	The laboratories shall establish control limits for individual chemicals or groups of chemicals based on the long-term performance of the test methods.	NMED/LANL Order on Consent, Section IX.C.1a, Quality Assurance Procedures	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.3.3, Quality Assurance Procedures, 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.
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82.	In addition, the laboratories shall establish internal QA/QC that meets EPA's laboratory certification requirements.	NMED/LANL Order on Consent, Section IX.C.1a, Quality Assurance Procedures	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.3.4, Quality Assurance Procedures, addresses this requirement.
Equipment Calibration Procedures and Frequency			
83.	The laboratories' equipment calibration procedures, calibration frequency, and calibration standards shall be in accordance with the EPA test methodology requirements and documented in the laboratories' quality assurance and SOP manuals.	NMED/LANL Order on Consent, Section IX.C.1b, Equipment Calibration Procedures and Frequency	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.4.1, Equipment Calibration Procedures and Frequency, addresses this requirement.
84.	All instruments and equipment used by the laboratory shall be operated, calibrated, and maintained according to manufacturers' guidelines and recommendations.	NMED/LANL Order on Consent, Section IX.C.1b, Equipment Calibration Procedures and Frequency	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.4.2, Equipment Calibration Procedures and Frequency, addresses this requirement.
85.	Operation, calibration, and maintenance shall be performed by personnel who have been properly trained in these procedures.	NMED/LANL Order on Consent, Section IX.C.1b, Equipment Calibration Procedures and Frequency	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.4.3, Equipment Calibration Procedures and Frequency, 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.
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86.	A routine schedule and record of instrument calibration and maintenance shall be kept on file at the laboratory.	NMED/LANL Order on Consent, Section IX.C.1b, Equipment Calibration Procedures and Frequency	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.4.4, Equipment Calibration Procedures and Frequency, addresses this requirement.
	Laboratory QA/QC Samples		
87.	Analytical procedures shall be evaluated by analyzing reagent or method blanks, surrogates, MS/MSDs, BS/BSDs, and laboratory duplicates, as appropriate for each method.	NMED/LANL Order on Consent, Section IX.C.1c, Laboratory QA/QC Samples	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.5.1, Laboratory QA/QC Samples, addresses this requirement.
88.	The laboratory QA/QC samples and frequency of analysis to be completed shall be documented in the cited EPA or DOE test methodologies.	NMED/LANL Order on Consent, Section IX.C.1c, Laboratory QA/QC Samples	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.5.2, Laboratory QA/QC Samples, addresses this requirement.
89.	At a minimum, the laboratory shall analyze laboratory blanks, MS/MSDs, BS/BSDs, and laboratory duplicates at a frequency of one in twenty for all batch runs requiring EPA test methods and at a frequency of one in ten for non-EPA test methods.	NMED/LANL Order on Consent, Section IX.C.1c, Laboratory QA/QC Samples	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.5.3, Laboratory QA/QC Samples, 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.
**Requirement is not currently in the location specified; however, it will be included within the next revision of the document.

Item No.	Requirement	Source Document*	Implementation Location
90.	Laboratory batch QA/QC samples shall be specific to the project.	NMED/LANL Order on Consent, Section IX.C.1c, Laboratory QA/QC Samples	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.5.4, Laboratory QA/QC Samples, addresses this requirement.
	Laboratory Deliverables		
91.	The laboratory analytical data package shall be prepared in accordance with EPA-established Level III or IV analytical support protocol.	NMED/LANL Order on Consent, Section IX.C.1d, Laboratory Deliverables	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.6.1, Laboratory Deliverables, 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.
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Item No.	Requirement	Source Document*	Implementation Location
92.	The following shall be provided in the analytical laboratory reports submitted to ERSS either electronically or in hard (paper) copy for this project: 1) Transmittal letter (see Item 27 for details); 2) Sample analytical results (see Item 28 for details); 3) Method blank results, including detection limits for undetected analytes; 4) Surrogate recovery results and corresponding control limits for samples and method blanks (organic analyses only); 5) MS/MSD and/or BS/BSD spike concentrations, percent recoveries, relative percent differences (RPDs), and corresponding control limits; 6) Laboratory duplicate results for inorganic analyses, including relative percent differences and corresponding control limits; 7) Sample chain-of-custody documentation; 8) Holding times and conditions; 9) Conformance with required analytical protocol(s); 10) Instrument calibration; 11) Blanks; 12) Detection/quantitation limits; 13) Recoveries of surrogates; 14) Variability for duplicate analyses; 15) Completeness; and 16) Data report formats.	NMED/LANL Order on Consent, Section IX.C.1d, Laboratory Deliverables	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.6.2, Laboratory Deliverables, addresses this requirement.
93.	The transmittal letter shall include information about the following: a) the receipt of samples; b) the testing methodology performed; c) any deviations from the required procedures; d) any problems encountered in the analysis of the samples; and e) any data quality exceptions, and any corrective actions taken by the laboratory relative to the quality of the data contained in the report.	NMED/LANL Order on Consent, Section IX.C.1d, Laboratory Deliverables	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.6.3, Laboratory Deliverables, 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.
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Item No.	Requirement	Source Document*	Implementation Location
94.	The sample analytical results shall include the following information: a) sampling date; b) date of sample extraction or preparation; c) date of sample analysis; d) dilution factors and test method identification; e) soil, rock, or sediment sample results in consistent units (mg/kg) or micrograms per kilogram in dry-weight basis; f) water sample results in consistent units (milligrams per liter or micrograms per liter (µg/L)); g) vapor sample results in consistent units (ppm or µg/m^3); and h) detection limits for undetected analytes.	NMED/LANL Order on Consent, Section IX.C.1d, Laboratory Deliverables	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.6.4, Laboratory Deliverables, addresses this requirement.
95.	Results shall be reported for all field samples, including field duplicates and blanks, submitted for analysis.	NMED/LANL Order on Consent, Section IX.C.1d, Laboratory Deliverables	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.6.5, Laboratory Deliverables, 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.
**Requirement is not currently in the location specified; however, it will be included within the next revision of the document.

Item No.	Requirement	Source Document*	Implementation Location
96.	The following data deliverables for organic compounds shall be required from the laboratory: a) a cover letter referencing the procedure used and discussing any analytical problems, deviations, and modifications, including signature from authority representative certifying to the quality and authenticity of data as reported; b) report of sample collection, extraction, and analysis dates, including sample holding conditions; c) tabulated results for samples in units as specified, including data qualification in conformance with EPA protocol, and definition of data descriptor codes; d) reconstructed ion chromatograms for gas chromatograph/mass spectrometry GC/MS analyses for each sample and standard calibration; e) selected ion chromatograms and mass spectra of detected target analytes (GC/MS) for each sample and calibration with associated library/reference spectra; f) gas chromatograph/electron capture device (GC/ECD) and/or gas chromatograph/flame ionization detector (GC/FID) chromatograms for each sample and standard calibration; g) raw data quantification reports for each sample and calibrations, including areas and retention times for analytes, surrogates, and internal standards; h) a calibration data summary reporting calibration range used and a measure of linearity [include decafluorotriphenylphosphine (DFTPP) and p-bromofluorobenzene (BFB) spectra and compliance with tuning criteria for GC/MS] i) final extract volumes (and dilutions required), sample size, wet-to-dry weight ratios, and instrument practical detection/quantitation limit for each analyte; j) analyte concentrations with reporting units identified, including data qualification in conformance with the CLP Statement of Work (include definition of data descriptor codes); k) quantification of analytes in all blank analyses, as well as identification of method blank associated with each sample;	NMED/LANL Order on Consent, Section IX.C.1d, Laboratory Deliverables	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.6.6, Laboratory Deliverables, and Attachment 1, Data Deliverables for Organic Compounds, address 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.
**Requirement is not currently in the location specified; however, it will be included within the next revision of the document.

Item No.	Requirement	Source Document*	Implementation Location
97.	The following data deliverables for organic compounds shall be required from the laboratory (continued): l) recovery assessments and a replicate sample summary, including all surrogate spike recovery data with spike levels/concentrations for each sample and all MS/MSD results (recoveries and spike amounts); and m) report of tentatively identified compounds with comparison of mass spectra to library/reference spectra.	NMED/LANL Order on Consent, Section IX.C.1d, Laboratory Deliverables	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.6.6, Laboratory Deliverables, and Attachment 1, Data Deliverables for Organic Compounds, address this requirement.

Item No.	Requirement	Source Document*	Implementation Location
98.	The following data deliverables for inorganic compounds shall be required from the laboratory: a) a cover letter referencing the procedure used and discussing any analytical problems, deviations, and modifications, including signature from authority representative certifying to the quality and authenticity of data as reported; b) report of sample collection, extraction, and analysis dates, including sample holding conditions; c) tabulated results for samples in units as specified, including data qualification in conformance with EPA protocol, and definition of data descriptor codes; d) results of all method QA/QC checks, including inductively coupled plasma (ICP) Interference Check Sample and ICP serial dilution results; e) tabulation of instrument and method practical detection/quantitation limits; f) raw data quantification report for each sample; g) a calibration data summary reporting calibration range used and a measure of linearity, where appropriate; h) final digestate volumes (and dilutions required), sample size, and wet-to-dry weight ratios; i) quantification of analytes in all blank analyses, as well as identification of method blank associated with each sample; and j) recovery assessments and a replicate sample summary, including post-digestate spike analysis; all MS data (including spike concentrations for each sample, if accomplished; all MS results (recoveries and spike amounts); and laboratory control sample analytical results).	NMED/LANL Order on Consent, Section IX.C.1d, Laboratory Deliverables	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.6.7, Laboratory Deliverables, and Attachment 2, Data Deliverables for Inorganic Compounds, address 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.
**Requirement is not currently in the location specified; however, it will be included within the next revision of the document.

Item No.	Requirement	Source Document*	Implementation Location
99.	ERSS shall present summary tables of these data and Level II QA/QC results to the Department in the formats described in Section XI of this Order.	NMED/LANL Order on Consent, Section IX.C.1d, Laboratory Deliverables	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.6.8, Laboratory Deliverables, addresses this requirement.
100.	The raw analytical data, including calibration curves, instrument calibration data, data calculation work sheets, and other laboratory support data for samples from this project, shall be compiled and kept on file at the Facility for reference.	NMED/LANL Order on Consent, Section IX.C.1d, Laboratory Deliverables	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.6.9, Laboratory Deliverables, addresses this requirement.
101.	ERSS shall make the data available to the Department upon request.	NMED/LANL Order on Consent, Section IX.C.1d, Laboratory Deliverables	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.6.10, Laboratory Deliverables, addresses this requirement.
Review of Field and Laboratory QA/QC Data			
102.	ERSS shall evaluate the sample data, field, and laboratory QA/QC results for acceptability with respect to the data quality objectives (DQOs).	NMED/LANL Order on Consent, Section IX.C.2, Review of Field and Laboratory QA/QC Data	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.7.1, Review of Field and Laboratory QA/QC Data, 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.
**Requirement is not currently in the location specified; however, it will be included within the next revision of the document.

Item No.	Requirement	Source Document*	Implementation Location
103.	Each group of samples shall be compared with the DQOs and evaluated using data validation guidelines contained in EPA guidance documents, the latest version of SW-846, and industry-accepted QA/QC methods and procedures.	NMED/LANL Order on Consent, Section IX.C.2, Review of Field and Laboratory QA/QC Data	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.7.2, Review of Field and Laboratory QA/QC Data, addresses this requirement.
104.	ERSS shall require the laboratory to notify the Facility project manager of data quality exceptions within one working day of discovery in order to allow for sample re-analysis, if possible.	NMED/LANL Order on Consent, Section IX.C.2, Review of Field and Laboratory QA/QC Data	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.7.3, Review of Field and Laboratory QA/QC Data, addresses this requirement.
105.	The ERSS project manager shall contact the Department within one working day of receipt of laboratory notification of data quality exceptions that may affect the ability to meet the objectives of the investigation or compliance activity in order to discuss the implications and determine whether the data will still be considered acceptable or if sample re-analysis or re-sampling is necessary.	NMED/LANL Order on Consent, Section IX.C.2, Review of Field and Laboratory QA/QC Data	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.7.4, Review of Field and Laboratory QA/QC Data, addresses this requirement.
106.	The ERSS project manager shall summarize the results of the discussion with the Department project leader regarding the data quality exceptions in a memorandum.	NMED/LANL Order on Consent, Section IX.C.2, Review of Field and Laboratory QA/QC Data	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.7.5, Review of Field and Laboratory QA/QC Data, 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.
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Item No.	Requirement	Source Document*	Implementation Location
107.	The ERSS shall submit the memorandum to the Department by fax or electronic mail within three working days of the conclusion of the data quality discussion.	NMED/LANL Order on Consent, Section IX.C.2, Review of Field and Laboratory QA/QC Data	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.7.6, Review of Field and Laboratory QA/QC Data, addresses this requirement.
Blanks, Field Duplicates, Reporting Limits and Holding Times			
108.	The analytical results of field blanks and field rinseate blanks shall be reviewed to evaluate the adequacy of the equipment decontamination procedures and the possibility of cross-contamination caused by decontamination of sampling equipment.	NMED/LANL Order on Consent, Section IX.C.3.a, Blanks	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.8.1, Blanks, Field Duplicates, Reporting Limits and Holding Times, addresses this requirement.
109.	The analytical results of trip blanks shall be reviewed to evaluate the possibility for contamination resulting from the laboratory-prepared sample containers or the sample transport containers.	NMED/LANL Order on Consent, Section IX.C.3.a, Blanks	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.8.2, Blanks, Field Duplicates, Reporting Limits and Holding Times, 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.
**Requirement is not currently in the location specified; however, it will be included within the next revision of the document.

Item No.	Requirement	Source Document*	Implementation Location
110.	The analytical results of laboratory blanks shall be reviewed to evaluate the possibility of contamination caused by the analytical procedures.	NMED/LANL Order on Consent, Section IX.C.3.a, Blanks	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.8.3, Blanks, Field Duplicates, Reporting Limits and Holding Times, addresses this requirement.
111.	If contaminants are detected in field or laboratory blanks, the sample data shall be qualified, as appropriate.	NMED/LANL Order on Consent, Section IX.C.3.a, Blanks	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.8.4, Blanks, Field Duplicates, Reporting Limits and Holding Times, addresses this requirement.
112.	Field duplicates shall consist of two samples either split from the same sample device or collected sequentially.	NMED/LANL Order on Consent, Section IX.C.3.b, Field Duplicates	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.8.5, Blanks, Field Duplicates, Reporting Limits and Holding Times, addresses this requirement.

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Item No.	Requirement	Source Document*	Implementation Location
113.	Field duplicate samples shall be collected at a minimum frequency of ten percent of the total number of samples submitted for analysis.	NMED/LANL Order on Consent, Section IX.C.3.b, Field Duplicates	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.8.6, Blanks, Field Duplicates, Reporting Limits and Holding Times, addresses this requirement.
114.	RPDs for field duplicates shall be calculated.	NMED/LANL Order on Consent, Section IX.C.3.b, Field Duplicates	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.8.7, Blanks, Field Duplicates, Reporting Limits and Holding Times, addresses this requirement.
115.	A precision of no more than 20 percent for duplicates shall be considered acceptable for soil, rock, and sediment sampling conducted at the Facility.	NMED/LANL Order on Consent, Section IX.C.3.b, Field Duplicates	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.8.8, Blanks, Field Duplicates, Reporting Limits and Holding Times, addresses this requirement.

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Item No.	Requirement	Source Document*	Implementation Location
116.	The analytical DQO for precision shall be used for water duplicates.	NMED/LANL Order on Consent, Section IX.C.3.b, Field Duplicates	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.8.9, Blanks, Field Duplicates, Reporting Limits and Holding Times, addresses this requirement.
117.	Method reporting limits for sample analyses for each medium shall be established at the lowest level practicable for the method and analyte concentrations and shall not exceed soil, groundwater, surface water, or vapor emissions background levels, cleanup standards, and screening levels.	NMED/LANL Order on Consent, Section IX.C.3.c, Method Reporting Limits	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.8.10, Blanks, Field Duplicates, Reporting Limits and Holding Times, addresses this requirement.
118.	The preferred method detection limits are at a maximum of 20 percent of the background, screening, or cleanup levels.	NMED/LANL Order on Consent, Section IX.C.3.c, Method Reporting Limits	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.8.10, Blanks, Field Duplicates, Reporting Limits and Holding Times, addresses this requirement.

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Item No.	Requirement	Source Document*	Implementation Location
119.	Detection limits that exceed established soil, groundwater, surface water, or air emissions cleanup standards, screening levels, or background levels and are reported as "not detected" shall be considered data quality exceptions and an explanation for the exceedance and its acceptability for use shall be provided.	NMED/LANL Order on Consent, Section IX.C.3.c, Method Reporting Limits	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.8.11, Blanks, Field Duplicates, Reporting Limits and Holding Times, addresses this requirement.
120.	ERSS shall review the sampling, extraction, and analysis dates to confirm that extraction and analyses were completed within the recommended holding times, as specified by EPA protocol.	NMED/LANL Order on Consent, Section IX.C.3.d, Holding Times	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.8.12, Blanks, Field Duplicates, Reporting Limits and Holding Times, addresses this requirement.
121.	Appropriate data qualifiers shall be noted if holding times were exceeded.	NMED/LANL Order on Consent, Section IX.C.3.d, Holding Times	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.8.13, Blanks, Field Duplicates, Reporting Limits and Holding Times, addresses this requirement.

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Item No.	Requirement	Source Document*	Implementation Location
	Representativeness and Comparability		
122.	Representativeness is a qualitative parameter related to the degree to which the sample data represent the relevant specific characteristics of the media sampled.	NMED/LANL Order on Consent, Section IX.C.4.a, Representativeness	*EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.9.1, Representativeness and Comparability, addresses this requirement.
123.	ERSS shall implement procedures to assure representative samples are collected and analyzed, such as repeated measurements of the same parameter at the same location over several distinct sampling events.	NMED/LANL Order on Consent, Section IX.C.4.a, Representativeness	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.9.1, Representativeness and Comparability, addresses this requirement.
124.	ERSS shall note any procedures or variations that may affect the collection or analysis of representative samples and shall qualify the data.	NMED/LANL Order on Consent, Section IX.C.4.a, Representativeness	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.9.2, Representativeness and Comparability, addresses this requirement.
125.	Comparability is a qualitative parameter related to whether similar sample data can be compared.	NMED/LANL Order on Consent, Section IX.C.4.b, Comparability	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.9.3, Representativeness and Comparability, addresses this requirement.

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Item No.	Requirement	Source Document*	Implementation Location
126.	To assure comparability, ERSS shall report analytical results in appropriate units for comparison with other data (past studies, comparable sites, screening levels, and cleanup standards), and shall implement standard collection and analytical procedures.	NMED/LANL Order on Consent, Section IX.C.4.b, Comparability	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.9.3, Representativeness and Comparability, addresses this requirement.
127.	Any procedure or variation that may affect comparability shall be noted and the data shall be qualified.	NMED/LANL Order on Consent, Section IX.C.4.b, Comparability	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.9.4, Representativeness and Comparability, addresses this requirement.
Laboratory Reporting, Documentation, Data Reduction, and Corrective Action			
128.	Upon receipt of each laboratory data package, data shall be evaluated against the criteria outlined in the previous sections.	NMED/LANL Order on Consent, Section IX.C.5, Laboratory Reporting, Documentation, Data Reduction, and Corrective Action	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.10.1, Laboratory Reporting, Documentation, Data Reduction, and Corrective Action, addresses this requirement.

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Item No.	Requirement	Source Document*	Implementation Location
129.	Any deviation from the established criteria shall be noted and the data will be qualified.	NMED/LANL Order on Consent, Section IX.C.5, Laboratory Reporting, Documentation, Data Reduction, and Corrective Action	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.10.2, Laboratory Reporting, Documentation, Data Reduction, and Corrective Action, addresses this requirement.
130.	A full review and discussion of analytical data QA/QC and all data qualifiers shall be submitted as appendices or attachments to investigation and monitoring reports prepared in accordance with this Consent Order.	NMED/LANL Order on Consent, Section IX.C.5, Laboratory Reporting, Documentation, Data Reduction, and Corrective Action	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.10.3, Laboratory Reporting, Documentation, Data Reduction, and Corrective Action, addresses this requirement.

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Item No.	Requirement	Source Document*	Implementation Location
131.	Data validation procedures for all samples shall include checking the following, when appropriate: 1. holding times; 2. detection limits; 3. field equipment rinseate blanks; 4. field blanks; 5. field duplicates; 6. trip blanks; 7. reagent blanks; 8. laboratory duplicates; 9. laboratory blanks; 10. laboratory matrix spikes; 11. laboratory matrix spike duplicates; 12. laboratory blank spikes; 13. laboratory blank spike duplicates; and 14. surrogate recoveries.	NMED/LANL Order on Consent, Section IX.C.5, Laboratory Reporting, Documentation, Data Reduction, and Corrective Action	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.10.4, Laboratory Reporting, Documentation, Data Reduction, and Corrective Action, addresses this requirement.
132.	If significant quality assurance problems are encountered, appropriate corrective action shall be implemented.	NMED/LANL Order on Consent, Section IX.C.5, Laboratory Reporting, Documentation, Data Reduction, and Corrective Action	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.10.5, Laboratory Reporting, Documentation, Data Reduction, and Corrective Action, 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.
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133.	All corrective action shall be defensible and the corrected data shall be qualified.	NMED/LANL Order on Consent, Section IX.C.5, Laboratory Reporting, Documentation, Data Reduction, and Corrective Action	EP-ERSS-SOP-5099, Revision 0.0, *Laboratory QA/QC Requirements,* Section 4.10.6, Laboratory Reporting, Documentation, Data Reduction, and Corrective Action, addresses this requirement.

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