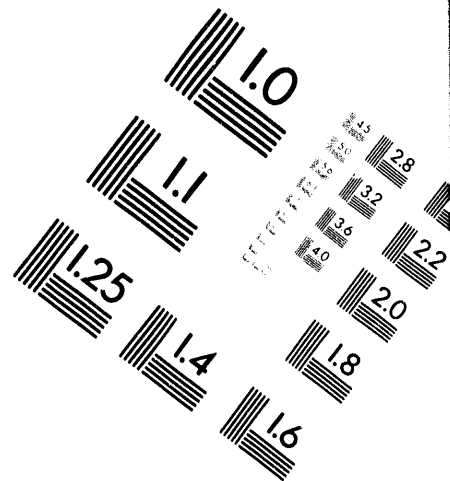
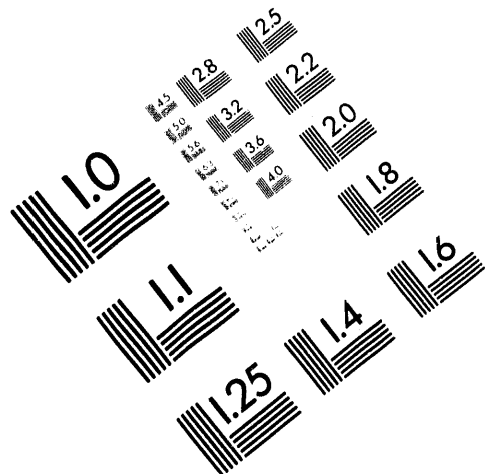




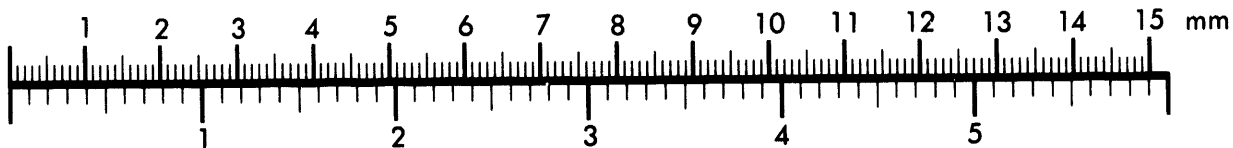
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Association for Information and Image Management

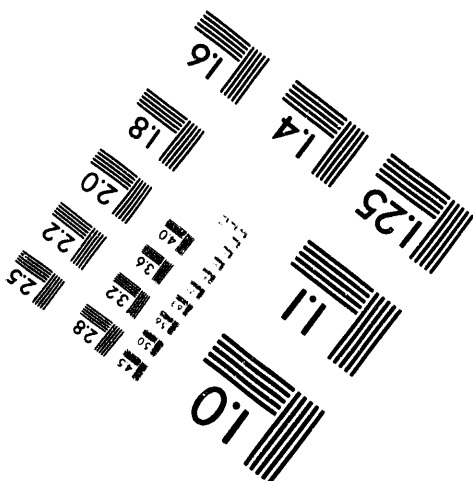
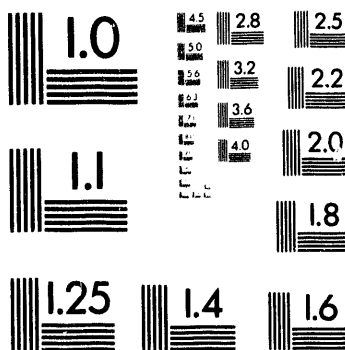
1100 Wayne Avenue, Suite 1100
Silver Spring, Maryland 20910
301/587-8202



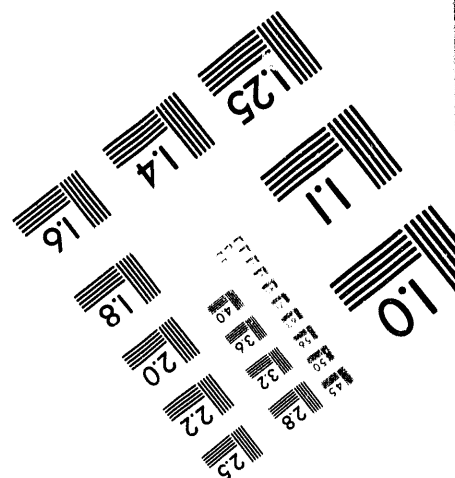
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2

GENERAL INTRODUCTION

BACKGROUND AND PURPOSE

The Department of Energy, Richland Operations Office (RL) Manual DOE/RL-90-28, *Environmental Restoration Program Quality System Requirements (QSR) for the Hanford Site*, defines all quality requirements governing Hanford Environmental Restoration (ER) Program activities. The QSR requires that ER Program participants develop Quality Management Plans (QMPs) that describe how the QSR requirements will be implemented for their assigned scopes of work. This standard review plan (SRP) describes the ER program participant responsibilities for submittal of QMPs to the RL Environmental Restoration Division for review and the RL methodology for performing the reviews of participant QMPs. The SRP serves the following functions:

- Acts as a guide in the development or revision of QMPs to assure that the content is complete and adequate
- Acts as a checklist to be used by the RL staff in their review of participant QMPs
- Acts as an index or matrix between the requirements of the QSR and implementing methodologies described in the QMPs
- Decreases the time and subjectivity of document reviews.
- Provides a formal, documented method for describing exceptions, modifications, or waivers to established ER Program quality requirements.

Instructions for completing an SRP checklist follows this Introduction. Checklist copies may be obtained through the U.S. Department of Energy, Richland Operations Office, Environmental Restoration Division, Attention: Chief, Environmental Program Branch.

QUALITY MANAGEMENT PLAN DEVELOPMENT AND SUBMITTAL

ER Program participant QMPs and subsequent QMP revisions shall be submitted to RL with their associated SRPs and shall provide sufficient detail to permit the RL staff to determine the adequacy of the planned implementation. Providing insufficient detail or merely repeating requirements statements delays approval of the participant's QMP. It is recommended that the participant's QMP address each criterion in the order in which it appears in the SRP. The order of the SRP is based on the structure of the QSR, i.e., it is divided into three parts addressing fifteen criteria.

The intent of the QSR is that ER Program participants develop individual quality programs for large-scale and unique operations and for clusters of similar activities that share common management and/or programmatic objectives.

DISTRIBUTION OF THIS DOCUMENT IS UNLIMITED

REVIEW AND APPROVAL OF QUALITY MANAGEMENT PLANS

The primary responsibility for review of participant QMPs lies with the Director, RL Environmental Restoration Division. Secondary responsibility for review of QMPs rests with the Environmental Programs Branch of the Environmental Restoration Division. The scope of the RL review of the QMP includes an evaluation of the following:

- Is the description of the quality program logically connected to the referenced requirements?
- Are organizational responsibilities and interfaces well defined?
- Is work accomplished in a planned and systematic fashion to ensure compliance with specified requirements?

Changes to previously approved QMPs should be evaluated to ensure that, at a minimum, such changes do not degrade the established quality program.

DOE/RL-90-28 COMPLIANCE CHECKLIST, REVISION 2

Page 1 of

PART I

Contractor: ① _____ Address: ② _____

Contract No.: ③ _____

Preparer: ④ _____ Telephone No.: ⑤ _____ Date Submitted: ⑥ _____

QMP No.: ⑦ _____ QMP Title: ⑧ _____ Rev. No.: ⑨ _____

Approval Authority: ⑩ _____ Address: ⑪ _____

Reviewer: ⑫ _____ Telephone No.: ⑬ _____ Date Rec'd: ⑭ _____

Approval Signature: ⑮ _____ Date: ⑯ _____

DOE/RL-90-28 COMPLIANCE CHECKLIST (COVER SHEET) INSTRUCTIONS

<u>Block No.</u>	<u>Instructions</u>
1-2	Checklist Preparer enters name and address of the contractor whose QMP is being submitted.
3	Checklist Preparer enters contract number that describes the scope of work for the QMP.
4-5	Checklist Preparer enters name and telephone number.
6	Checklist Preparer enters the date on which the checklist is actually submitted to the review authority.
7-9	Checklist Preparer enters QMP number, title, and revision.
10-11	Checklist Preparer enters the name and address of the review authority, i.e., the organization with whom contracted.
12-13	Reviewer enters name and telephone number.
14	Reviewer enters the date the checklist is actually received for review.
15	Reviewer signs and dates approval when all items in the respective Part of the checklist have been individually initialed as approved (see "closed" column of subsequent checklist pages). 2

DOE/RL-90-28, REV. 2, COMPLIANCE CHECKLIST, PART I (cont'd)				
Page 2 of				
NO.	REQUIREMENT STATEMENT	SEC/ PAMA	SAT/ USAT	COMMENTS
①	The Checklist Preparer shall enter the section(s)/paragraph(s) of the subject QMP that satisfy the requirement statement. If the requirement is not applicable, the checklist preparer shall reference a memorandum that provides justification for the inapplicability.	①	②	④
②	The Reviewer shall enter an "S" for satisfactory or a "U" for unsatisfactory.			
③	The Reviewer shall note the reason for an unsatisfactory status in Block 2 and describe any subsequent resolutions obtained through correspondence with the checklist preparer.			
④	The Reviewer shall initial each requirement statement to indicate final acceptance of the checklist item.			

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ACRONYMS AND ABBREVIATIONS

ACS	American Chemical Society
ANSI	American National Standards Institute
ARAR	applicable or relevant and appropriate requirements
ASME	American Society of Mechanical Engineers
ASQC	American Society for Quality Control
ASTM	American Society for Testing and Materials
CERCLA	<i>Comprehensive Environmental Response, Compensation, and Liability Act of 1980</i>
CFR	<i>Code of Federal Regulations</i>
D&D	decontamination and decommissioning
DNFSB	Defense Nuclear Facilities Safety Board
DOE	U.S. Department of Energy
DQO	Data Quality Objective
Ecology	Washington State Department of Ecology
EM	DOE Office of Environmental Restoration and Waste Management
EM-QARD	DOE Office of Environmental Restoration and Waste Management <i>Quality Assurance Requirements and Description</i>
EPA	U.S. Environmental Protection Agency
ER	Environmental Restoration
ES&H	Environmental Safety and Health
FS	Feasibility Study
HWMA	Hazardous Waste Management Act
ISO	International Organization for Standardization
M&TE	measuring and test equipment
MSA	major system acquisition
NEPA	<i>National Environmental Policy Act</i>
NPL	National Priorities List
NQA	Nuclear Quality Assurance
NRC	U.S. Nuclear Regulatory Commission
NUREG	Nuclear Regulatory Guide
OCS	other consensus standards
PA/SI	Preliminary Assessment/Site Investigation
PARCC	precision, accuracy, representativeness, comparability, and completeness
QA	quality assurance
QAMS	Quality Assurance Management Staff (EPA)
QAPjP	Quality Assurance Project Plan
QMP	Quality Management Plan
QSR	<i>Environmental Restoration Program Quality System Requirements for the Hanford Site</i>
QC	quality control
RCRA	<i>Resource Conservation and Recovery Act of 1976</i>
RCW	Revised Code of Washington

ACRONYMS AND ABBREVIATIONS (Continued)

RI	Remedial Investigation
RI/FS	Remedial Investigation/Feasibility Study
RL	U.S. Department of Energy, Richland Operations Office
SAP	Sampling and Analysis Plan
SEN	Secretary of Energy Notice
SOP	Standard Operating Procedure
Tri-Party Agreement	<i>Hanford Federal Facility Agreement and Consent Order</i>
WAC	<i>Washington Administrative Code</i>

DOE/RL-90-28 COMPLIANCE CHECKLIST, REVISION 2

Page 1 of 61

PART I

Contractor: _____ Address: _____

Contract No.: _____

Preparer: _____ Telephone No.: _____ Date Submitted: _____

QMP No.: _____ QMP Title: _____ Rev. No.: _____

Approval Authority: _____ Address: _____

Reviewer: _____ Telephone No.: _____ Date Rec'd: _____

Approval Signature: _____ Date: _____

DOE/RL-90-28, REV. 2, COMPLIANCE CHECKLIST, PART I (cont'd)					
Page 2 of 61					
NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
1	PART IA, 1.0 [1] QUALITY MANAGEMENT SYSTEM Criterion 1 establishes the requirements for developing, implementing, and maintaining a quality management system that defines the management policies, organizational structure, functional responsibilities, plans, procedures, processes, and controls necessary to implement an effective quality system. All such controls shall be directed toward (1) reducing, (2) eliminating, and most importantly, (3) preventing quality problems.				
2	PART IA, 1.0 [2] The system shall describe the functional responsibility, levels of authority, interfaces, and accountability of those managing, performing, and assessing activities affecting quality.				
3	PART IA, 1.1 [1] Senior management shall define and document its policy and objectives for commitment to and continuous improvement of quality.				

DOE/RL-90-28, REV. 2, COMPLIANCE CHECKLIST, PART I (cont'd)

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
4	PART IA, 1.1 [2] This policy shall commit the organization to develop, implement, and maintain a formal quality system that ensures effective and efficient achievement of performance objectives and technical requirements relative to the organization's work scope.				
5	PART IA, 1.1 [3] The policy statement shall define objectives pertaining to key elements of quality, such as fitness for use, performance, safety, and reliability. It shall commit management at all levels to manage and motivate personnel and foster a "no-fault" attitude to encourage the identification of quality problems.				
6	PART IA, 1.2 [1] The system shall describe the organizational structure, functional responsibilities, levels of authority, interfaces, and lines of communication for those managing, performing or assessing activities affecting quality, including on- and off-site organizations.				

DOE/RL-90-28, REV. 2, COMPLIANCE CHECKLIST, PART I (cont'd)

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ LIC/BAT	COMMENTS	CLOSED
7	<p>PART IA, 1.2 [2] The system shall be based on the following principles:</p> <p>a. Senior management shall retain and exercise responsibility for the scope, implementation, assessment, and continued improvement of an effective system.</p> <p>b. Line management shall retain responsibility for the achievement of quality.</p> <p>c. Each individual shall retain responsibility for the quality of his/her work.</p> <p>d. The system shall be binding on all personnel.</p> <p>e. Quality shall not be regarded as the sole domain of any single group but is the responsibility of <u>all</u> personnel, including management, laboratory technicians, designers, scientists, engineers, analysts, welders, inspectors, researchers, principal investigators, operators, craftsmen, and auditors.</p>				
8	<p>PART IA, 1.2.1 [1] The organizational structure and assignment of responsibilities shall describe the provisions that ensure the following:</p> <p>a. Quality is achieved and maintained by those assigned responsibility for performing work.</p> <p>b. Quality achievement is verified by persons not directly responsible for performing the work.</p>				

DOE/RL-90-28, REV. 2, COMPLIANCE CHECKLIST, PART I (cont'd)

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
9	<p>PART IA, 1.2.1 [2] Documentation shall include organizational charts, functional responsibilities, and descriptions.</p>				
10	<p>PART IA, 1.2.2 [1] The organizational responsibilities shall reflect an integration of the technical, administrative, quality achievement, and quality verification functions. The integration shall ensure that the quality system elements are threaded throughout the entire organizational structure (inter- and intra-discipline) and are an integral part of day-to-day operations.</p>				

DOE/RL-90-28, REV. 2, COMPLIANCE CHECKLIST, PART I (cont'd)

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
11	<p>PART IA, 1.2.2 [2] Functional responsibilities include the following work processes and activities:</p> <ul style="list-style-type: none"> a. Planning b. Training and personnel development c. Preparing, reviewing, approving, and verifying designs d. Qualifying suppliers e. Preparing, reviewing, approving, and issuing instructions, procedures, schedules, and procurement documents f. Purchasing g. Verifying supplier work h. Identifying and controlling hardware and software i. Manufacturing j. Managing and operating facilities k. Calibrating and controlling measuring and test equipment l. Conducting investigations and acquiring data m. Performing maintenance, repair, and improvements n. Performing assessments o. Controlling records. 				

DOE/RL-90-28, REV. 2, COMPLIANCE CHECKLIST, PART I (cont'd)					Page 7 of 61
NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
12	<p>PART IA, 1.2.3 [1] Persons and/or organizations performing quality achievement or verification functions shall have the authority to do the following:</p> <ul style="list-style-type: none"> a. Initiate action to prevent an item or process nonconformity b. Identify and record any item or process quality problems c. Initiate, recommend, or provide solutions through designated channels d. Verify the implementation of solutions e. Control further processing, delivery, installation, or use of a nonconforming item or process until the deficiency or unsatisfactory condition is corrected. 				
13	<p>PART IA, 1.2.4 [1] Responsibility and authority to stop unsatisfactory work shall be assigned, in writing, such that planning and schedule considerations do not override quality or safety and health considerations.</p>				
14	<p>PART IA, 1.2.4 [2] However, all personnel shall be granted the freedom and authority to stop work until effective, corrective action is taken.</p>				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
15	PART IA, 1.2.5 Senior management shall retain responsibility for work delegated to others. Work delegated to other organizations shall be identified, and lines of communication shall be established. Senior management shall also retain the responsibility for verifying that delegated work activities are properly performed.				
16	PART IA, 1.3 [1] A documented quality system shall be planned, implemented, and maintained in accordance with this document (or portions thereof) and shall identify the items and work processes to which it applies.				
17	PART IA, 1.3 [2] The establishment of the system shall include consideration of the technical aspect of the activities affecting quality.				
18	PART IA, 1.3 [3] The quality system shall be established and documented in a Quality Management Plan (QMP).				
19	PART IA, 1.3 [4] The QMP shall be accompanied by an implementation schedule.				

DOE/RL-90-28, REV. 2, COMPLIANCE CHECKLIST, PART I (cont'd)

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
20	<p>PART IA, 1.3 [5] The QMP shall describe the management system for planning, performing, and assessing work to ensure that the results meet stated quality, technical, and performance objectives including scheduling and cost control considerations. The primary purpose of the QMP is to provide an overall description of the management system while serving as a permanent reference in the implementation and maintenance of that system.</p>				
21	<p>PART IA, 1.4 [1] Planning for work activities shall ensure that such activities are authorized and accomplished under controlled conditions in a specified manner and sequence. Controlled conditions include appropriate controls for materials; equipment; processes and procedures; computer software; personnel; and associated supplies, utilities, and environments.</p>				
22	<p>PART IA, 1.4 [2] Initial estimates, used in planning, shall be based on sound data and assumptions relating to personnel, material/service costs, availabilities, and productivity.</p>				

DOE/RL-90-28, REV. 2, COMPLIANCE CHECKLIST, PART I (cont'd)

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
23	<p>PART IA, 1.4.1</p> <p>The system shall describe the management system for establishing and controlling work operations to be performed including provisions for defining the systematic sequence of operations and the overall methods to verify the quality of the work. Such provisions shall address the following elements, as a minimum:</p> <p>a. Definition of project objectives and a listing of the primary activities involved in the work</p> <p>b. Selective application of applicable technical, regulatory, or programmatic requirements and procedural controls to items and activities.</p>				
24	<p>PART IA, 1.4.2 [1]</p> <p>The system shall describe how the quality requirements and procedural controls are selectively applied to task-level work activities based on risk and importance of items and/or services in meeting ER Program objectives.</p>				
25	<p>PART IA, 1.4.2 [2]</p> <p>The determination of risk and selection (grading) of management controls to be applied shall be accomplished by qualified technical and cognizant management personnel working as a team to evaluate the scope, type of work, and risk involved. The goal of the graded application of management controls for the achievement and verification of quality is to select those controls necessary to reduce, eliminate, and prevent quality problems.</p>				

DOE/RL-90-28, REV. 2, COMPLIANCE CHECKLIST, PART I (cont'd)

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
26	<p>PART IA, 1.4.2 [3] The following considerations shall be evaluated as applicable in determining the degree of risk associated with task- and/or project-level work activities and the required level of management control:</p> <ul style="list-style-type: none"> a. Environmental safety and health b. Consequence and/or probability of failure c. Importance of data and reproducibility of results d. Complexity of function and necessity of special controls or processes e. Uniqueness of product and degree of standardization f. Impact on schedule or cost of rework. 				
27	<p>PART IA, 1.4.3 [1] Readiness reviews shall be conducted and documented before proceeding beyond major scheduled or planned work and before reinitiating work after a stop work order.</p>				

DOE/RL-90-28, REV. 2, COMPLIANCE CHECKLIST, PART I (cont'd)

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
28	<p>PART IA, 1.4.3 [2] These reviews shall be performed to verify the following:</p> <p>a. Work prerequisites have been satisfied.</p> <p>b. Detailed technical and quality procedures have been reviewed for adequacy and appropriateness.</p> <p>c. Personnel have been suitably trained and qualified.</p> <p>d. The proper equipment, material, and resources are available.</p>				
29	<p>PART IA, 2.0 [1] PERSONNEL TRAINING AND QUALIFICATION Criterion 2 establishes the requirements for training and qualification of personnel to ensure they are capable of performing their assigned work. The need for personnel training shall be identified, and a training method shall be established.</p>				
30	<p>PART IA, 2.0 [2] Consideration shall be given to providing training to all levels of personnel within the organization. The training program shall provide for appropriate training based on work activities of personnel and shall be subject to on-going review to assess its effectiveness.</p>				
31	<p>PART IA, 2.0 [3] Particular attention shall be given to selecting and training recruited personnel and personnel transferred to new assignments. Personnel shall be provided with continuing training to ensure that job performance is maintained.</p>				

DOE/RL-90-28, REV. 2, COMPLIANCE CHECKLIST, PART I (cont'd)

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
32	PART IA, 2.1 The system shall describe the provisions that ensure personnel assigned to perform work activities are selected based on established education, training, special physical characteristics, and experience prerequisites.				
33	PART IA, 2.2 [1] Personnel, including new hires and personnel transferred to new assignments, shall receive general training on the mission and objectives of the ER Program for the Hanford Site.				
34	PART IA, 2.2 [2] General personnel training shall include, but not necessarily be limited to, the following: a. Orientation to general criteria of governing documents including the <i>Hanford Federal Facility Agreement and Consent Order</i> (Tri-Party Agreement); applicable DOE Orders; and Federal and State codes, standards, regulations, policies, and procedures b. Key Terminology c. Orientation to the ER Program management system d. Orientation to the quality system and why quality requirements exist, how the tasks they perform support the overall mission objectives of the ER Program for the Hanford Site, the advantages of proper job performance on customer satisfaction and operating costs, and the potential consequences of improper or unacceptable work.				

DOE/RL-90-28, REV. 2, COMPLIANCE CHECKLIST, PART I (cont'd)

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
35	PART IA, 2.3 [1] Training plans shall be developed that include both education in principles and enhancement of skills and practices. Training plans shall provide for maintenance of proficiency and progressive improvement and shall not be limited to attainment of initial proficiency.				
36	PART IA, 2.3 [2] Training plans shall provide for curricula that address specific needs.				
37	PART IA, 2.3 [3] Curricula shall be administered by qualified instructors.				
38	PART IA, 2.4 Management training shall emphasize management's role in leading, directing, and motivating personnel in the correct performance of their assigned duties as well as motivating personnel to improve performance. Management training shall include enhancement of professional, managerial, communication and interpersonal skills.				

DOE/RL-90-28, REV. 2, COMPLIANCE CHECKLIST, PART I (cont'd)

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
39	<p>PART IA, 2.5 [1] Personnel performing work activities shall receive training on their assigned tasks. Training shall be provided, as needed, to do the following:</p> <ul style="list-style-type: none"> a. Achieve initial proficiency b. Maintain proficiency c. Adapt to changes in technology, methods, or job responsibilities. 				
40	<p>PART IA, 2.5 [2] The system shall describe how training requirements are selected and implemented.</p>				
41	<p>PART IA, 2.5 [3] Training shall emphasize correct performance of work and provide accurate, definitive measures of quality achievement that can be used by personnel to recognize the attainment of satisfactory levels of quality for work activities.</p>				
42	<p>PART IA, 2.5 [4] Training shall ensure the worker understands the processes and tools he/she is using, the extent and sources of variability in those processes and tools, and the degree to which he/she does or does not have control over that variability.</p>				

DOE/RL-90-28, REV. 2, COMPLIANCE CHECKLIST, PART I (cont'd)

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
43	<p>PART IA, 2.5 [5] The extent of training shall be commensurate with the following:</p> <p>a. Scope, complexity, and nature of the activity to be performed</p> <p>b. Prior education, experience, and proficiency of personnel selected to fill a position.</p>				
44	<p>PART IA, 2.6 [1] Qualification requirements shall be established and reevaluated periodically for specific job categories, e.g., operators, designers, managers, inspectors, analysts, engineers, and scientists.</p>				
45	<p>PART IA, 2.6 [2] In particular, the system shall describe provisions for the formal qualification of personnel performing special processes, tests, or inspections.</p>				
46	<p>PART IA, 2.6 [3] Personnel shall be qualified before performing work.</p>				
47	<p>PART IA, 2.6.1 Personnel performing special processes shall be qualified in accordance with applicable codes, standards, and regulations, as appropriate. Qualification of such personnel shall include both initial and periodic demonstration of proficiency of each candidate to assure skills are maintained to meet current practices.</p>				

DOE/RL-90-28, REV. 2, COMPLIANCE CHECKLIST, PART I (cont'd)

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
48	<p>PART IA, 2.6.2</p> <p>The need for formal qualification of personnel performing tests or inspections shall be evaluated and implemented where necessary. Such personnel shall be qualified in accordance with applicable codes, standards, and regulations, as appropriate.</p>				
49	<p>PART IA, 2.7</p> <p>The system shall describe how records of completed training are established and maintained. These records shall include the following information, as appropriate:</p> <ul style="list-style-type: none"> a. Attendance sheets/training logs b. Records of course content, including date(s) of training and the name of the instructor c. Personnel training records d. Formal qualification (certification) records, as applicable. 				
50	<p>PART IA, 3.0 [1] QUALITY IMPROVEMENT</p> <p>Criterion 3 establishes the requirements for the detection, correction, and prevention of quality problems related to items and processes and the continuous improvement of quality. Items and processes that do not meet established requirements shall be identified, controlled, and corrected.</p>				

DOE/RL-90-28, REV. 2, COMPLIANCE CHECKLIST, PART I (cont'd)

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
51	PART IA, 3.0 [2] The system shall include provisions for all personnel to identify nonconforming items and processes and for management at all levels to foster a "no-fault" attitude to encourage identification of nonconforming items and processes. Management shall be involved in the quality improvement process to ensure that proper focus is given, adequate resources are allocated, and difficult issues are resolved.				
52	PART IA, 3.0 [3] Correction shall include identifying the causes of significant problems and preventing recurrence. Item reliability, process implementation, and other quality-related information shall be reviewed, and the data analyzed to identify items and processes that need improvement.				
53	PART IA, 3.0 [4] The system shall describe provisions for the detection, correction, prevention, disposition, and, most importantly, elimination of quality problems through a process of continuing improvement.				
54	PART IA, 3.0 [5] The system shall include provisions for resolving professional differences in views or opinions.				

DOE/RL-90-28, REV. 2, COMPLIANCE CHECKLIST, PART I (cont'd)

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
55	PART IA, 3.1 Items that do not conform to specified requirements shall be controlled to prevent inadvertent test, installation, or use. Controls shall provide for identification (paragraph 3.1.1), segregation when practical (paragraph 3.1.2), as well as evaluation and disposition (paragraph 3.1.3) of nonconforming items.				
56	PART IA, 3.1.1 Suspected nonconforming items shall be immediately identified and recorded. Identification of nonconforming items shall be by marking, tagging, or other methods that shall not adversely affect the end use of the item. The identification shall be legible and easily recognized. If identifying each nonconforming item is not practical, the container, package, or segregated storage area, as appropriate, shall be identified.				
57	PART IA, 3.1.2 Nonconforming items shall be segregated from conforming items whenever practical. Segregation shall include placing the nonconforming items in a clearly identified and designated hold area until an appropriate disposition (paragraph 3.1.3) is determined. When segregation is impractical or impossible because of physical conditions, such as size, weight, or access limitations, other precautions shall be employed to preclude inadvertent use of the nonconforming item.				

DOE/RL-90-28, REV. 2, COMPLIANCE CHECKLIST, PART I (cont'd)					
Page 20 of 61					
NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
58	PART IA, 3.1.3 An item's nonconforming characteristics shall be reviewed and the recommended disposition of nonconforming items (such as use-as-is, reject, repair, or rework) shall be identified, documented, and approved in accordance with written procedures.				
59	PART IA, 3.1.3.1 [1] Organizational responsibilities and authorities for the evaluation, disposition, and closeout of a nonconformance shall be documented.				
60	PART IA, 3.1.3.1 [2] Personnel performing evaluations to determine a disposition shall have (1) demonstrated competence in the specific area they are evaluating, (2) an adequate understanding of the requirements, and (3) access to pertinent background information.				
61	PART IA, 3.1.3.2 [1] Technical justification for the acceptability of a nonconforming item that is dispositioned as repair or use-as-is shall be documented.				
62	PART IA, 3.1.3.2 [2] Nonconformance to design requirements dispositioned as repair or use-as-is shall be subject to design controls commensurate with those applied to the original design. The as-built records, if required, shall show the accepted deviation.				

DOE/RL-90-28, REV. 2, COMPLIANCE CHECKLIST, PART I (cont'd)

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
63	PART IA, 3.1.3.3 Further processing; delivery; or inadvertent test, installation, or use of a nonconforming item shall be controlled pending approval of the disposition by authorized personnel.				
64	PART IA, 3.1.3.4 Reworked or repaired items shall be reverified in accordance with applicable procedures and with the original acceptance criteria unless the nonconforming item disposition has established alternate acceptance criteria.				
65	PART IA, 3.1.3.5 Provisions shall be established to analyze, trend, and take corrective action to preclude recurrence of nonconformance.				
66	PART IA, 3.2 [1] The system shall describe the provisions that ensure that conditions adverse or potentially adverse to quality (quality problems) are (1) identified, (2) analyzed, and (3) promptly corrected, as appropriate.				
67	PART IA, 3.2 [2] The identification, root cause, and corrective action for significant conditions adverse to quality shall be documented and reported to appropriate levels of management.				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
68	PART IA, 3.2.1 Organizational responsibilities and authorities for coordinating, evaluating, analyzing, and monitoring all aspects of the corrective action process shall be established and documented.				
69	PART IA, 3.2.2 [1] The system shall describe the provisions for determining the significance of quality problems and for taking effective corrective action based on the potential impact of the problem on health and safety, environmental protection, quality costs, and performance.				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
70	<p>PART IA, 3.2.2 [2] The system shall describe the management system for identifying, reporting, and correcting quality problems and conditions that adversely affect quality, including the following requirements.</p> <p>a. Specific criteria shall be developed for identifying significant quality problems and adverse conditions.</p> <p>b. Management information, including lessons learned from quality problems or adverse conditions, shall be routinely disseminated to all affected organizations.</p> <p>c. Existing, developing, or potentially out-of-control quality conditions shall be promptly reported to responsible management for evaluation and action.</p> <p>d. Upon discovering or receiving notification that a quality problem or adverse conditions exists, the following shall be done:</p> <ol style="list-style-type: none"> 1. Take timely actions to remedy the specific condition 2. Determine root cause factors 3. Take appropriate action to preclude recurrence, including review, evaluation, and revision of controls, if necessary 4. Assess and document the impact on completed work. 				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS
71	PART IA, 3.2.2 [3] Follow-up action shall be taken to verify implementation of corrective action.			
72	PART IA, 3.2.2 [4] Measures to eliminate or minimize recurrence of quality problems shall be established.			

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
73	<p>PART IA, 3.2.3 [1]</p> <p>The system shall describe the provisions for determining where corrective actions have not been effective in preventing recurrence of nonconforming conditions or quality problems. Provisions for making these determinations shall include, but not be limited to, the following:</p> <ul style="list-style-type: none"> a. Determine the events leading to the occurrence of the quality problem b. Understand the technical and work activities associated with the quality problem c. Ascertain the quality problem's generic implications d. Determine the extent to which similar quality problems (or precursors to the problem) have been recognized by the responsible organization, the effectiveness of any corrective actions that were taken, recognition of any generic implication, and impacts on completed work e. Consider stopping work associated with the applicable activity f. Recommend actions that can be taken by the responsible organization to preclude recurrence. 				
74	<p>PART IA, 3.2.3 [2]</p> <p>Preventive action shall be initiated, as appropriate, considering the magnitude of potential problems. When preventive measures are implemented, their effect shall be monitored to ensure that desired quality objectives are satisfied and maintained.</p>				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
75	PART IA, 3.2.4 (1) The system shall describe provisions for analyzing quality-related information to identify trends that adversely impact quality and opportunities to improve items and processes.				
76	PART IA, 3.2.4 (2) Analysis of quality-related information shall include, where possible, identification of common work processes for item quality problems, cause-and-effect analysis and determination of effective corrective and preventive actions from external sources, including other DOE facilities or sites. Quality-related information to be analyzed shall include, but not be limited to, the following, as appropriate: a. Performance data b. Audit reports c. Surveillance reports d. Nonconformance reports e. Failure rates and associated costs f. Appraisal costs g. Prevention costs h. Quality-related information from external sources (not to be limited to one type of work, one facility, or one contractor). i. Performance indicators, as applicable, in accordance with DOE Order 5480.26, <i>Trending and Analysis of Operations Information Using Performance Indicators</i> .				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
77	PART IA, 3.2.4 [3] Trend analysis shall be performed in a manner and at a frequency that ensures significant quality trends are identified and evaluated for appropriate corrective action.				
78	PART IA, 3.2.4 [4] Trends determined to be adverse to quality shall be reported to the organizations responsible for corrective action.				
79	PART IA, 3.2.5 The system shall describe the root cause analysis provisions for nonconforming items and processes. The extent of root cause analyses shall be commensurate with the importance or significance of the problem.				
80	PART IA, 3.3 [1] The system shall describe the provisions for enabling all personnel to promote and ensure continuous improvement of items and work processes. This includes identification and improvement of expected performance standards and the associated performance measures.				
81	PART IA, 3.3 [2] Planning and problem prevention includes, but is not limited to, peer reviews, design reviews, probabilistic risk assessments, safety analysis reports, and reliability/availability/maintainability analyses.				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
82	PART IA, 3.3 [3] The focus of quality improvement shall be on reducing the variability of every process that influences the quality of the product.				
83	PART IA, 3.3 [4] The continuous improvement of quality requires implementing a system to manage costs resulting from ineffective or inefficient quality control(s). This system shall include provisions to identify adverse quality-related performance data and measures to develop performance standards that control quality-related costs resulting from nonconformances, laboratory and field test failures, and trend analysis abnormalities, for example.				
84	PART IA, 3.4 Procedures shall describe the method(s) for evaluating assessment findings, surveillance findings, nonconformances, and corrective action requests for reportability in accordance with DOE Orders 5000.3A, <i>Occurrence Reporting and Processing of Operations Information</i> ; 5484.1, <i>Environmental Protection, Safety, and Health Protection Information Reporting Requirements</i> ; 5480.4, <i>Environmental Protection, Safety, and Health Protection Standards</i> ; and RLIP 5484.1A, <i>Environmental Protection Safety, and Health Protection Information Reporting Requirements</i> .				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
85	<p>PART IA, 4.0 PROCUREMENT</p> <p>The system shall describe the management controls, based on the requirements of this document, to ensure that the procurement process is documented and controlled. The controls shall also ensure that procured items and/or services conform to established specifications, are of acceptable quality, and perform as expected.</p> <p>The system shall describe provisions for the following:</p> <ul style="list-style-type: none"> a. Defining requirements for specifications, drawings, and purchase orders including acceptance criteria b. Selecting qualified suppliers c. Verifying that qualified suppliers can continue to provide acceptable products and/or services d. Accepting purchased items and/or services e. Establishing appropriate supplier quality system requirements f. Receiving and maintaining procurement records, including evidence of conformance. 				
86	<p>PART IA, 4.1 [1]</p> <p>Procurement activities shall be planned and documented to ensure a systematic approach to the procurement process. Procurement planning shall result in the documented identification of procurement methods and organizational responsibilities.</p>				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
87	PART IA, 4.1 [2] Planning shall determine what will be done, who will do it, how it will be done, and when the procurement will be performed.				
88	PART IA, 4.1 [3] Planning shall be accomplished as early as practical, and no later than the start of those procurement activities that require control, to ensure interface compatibility and uniform approach to the procurement process.				
89	PART IA, 4.1 [4] Planning shall result in the documented identification of provisions to be used in procurement activities, the sequence of actions and milestones indicating the completion of these activities, and the preparation of applicable procedures before the initiation of each individual activity.				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
90	<p>PART IA, 4.1 [5] Planning shall provide for the integration of the following:</p> <ul style="list-style-type: none"> a. Procurement document preparation, review, and change control b. Bid evaluation and award c. Purchaser control of the supplier's performance. e. Verification (i.e., surveillance, inspection, or audit) activities by the purchaser, including notification for hold and witness points e. Control of nonconformance f. Corrective action g. Acceptance of the item or service h. Procurement records. 				
91	<p>PART IA, 4.2 [1] The suppliers shall be selected based on their capability to provide items or services in accordance with the requirements of the procurement documents. The suppliers' capability shall be evaluated before the contract is awarded.</p>				
92	<p>PART IA, 4.2 [2] Procurement source evaluation and selection methods shall be implemented by the purchaser and shall identify the purchaser's organizational responsibilities for determining supplier capability.</p>				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
93	<p>PART IA, 4.2 [3] Provisions for evaluating and selecting procurement sources (and the results thereof) shall be documented and shall include one or more of (a) through (c) below:</p> <p>a. Evaluation of the supplier's history of providing an identical or similar product that performs satisfactorily in actual use. The supplier's history shall reflect current capability</p> <p>b. Supplier's current record, supported by documented qualitative and quantitative information that can be evaluated objectively</p> <p>c. Supplier's technical and quality capability as determined by a direct evaluation of the supplier's facilities and personnel and by implementation of their quality system.</p>				
94	<p>PART IA, 4.2.1 Bid evaluation shall determine the extent of conformance to the procurement documents. This evaluation shall be performed by individuals or organizations designated to evaluate the following subjects, as applicable to the type of procurement:</p> <p>a. Technical requirements</p> <p>b. Quality assurance requirements</p> <p>c. Supplier's personnel</p> <p>d. Supplier's production capabilities</p> <p>e. Supplier's past performance</p> <p>f. Alternates</p> <p>g. Exceptions.</p>				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
95	<p>PART IA, 4.2.2 Before the award of the contract, the purchaser shall resolve, or obtain commitments to resolve, unacceptable quality conditions discovered during the bid evaluation.</p>				
96	<p>PART IA, 4.3 [1] The purchaser of items and services shall establish provisions to interface with the supplier and to verify the supplier's performance as deemed necessary by the purchaser. These methods shall include the following:</p> <ul style="list-style-type: none"> a. Establishing an understanding between the purchaser and supplier of the provisions and specifications of the procurement documents b. Reviewing supplier documents that are generated or produced during activities that fulfill procurement requirements c. Identifying and processing necessary change information d. Establishing a method of document information exchange between the purchaser and the supplier e. Establishing the extent of source surveillance and inspection activities. 				
97	<p>PART IA, 4.3 [2] These verification activities shall be conducted as early as practicable. The purchaser's verification activities, however, shall not relieve the suppliers of their responsibilities to verify quality achievement.</p>				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
98	PART IA, 4.3.1 [1] The extent of verification activities, including planning, shall be a function of the relative importance, complexity, and quantity of the item or services procured and the supplier's quality performance.				
99	PART IA, 4.3.1 [2] Verification activities shall be accomplished by qualified personnel assigned to check, inspect, audit, or witness the supplier's activities.				
100	PART IA, 4.3.2 [1] Activities performed to verify conformance to requirements of procurement documents shall be recorded. Source surveillance and inspections, audits, receiving inspection, nonconformance, dispositions, waivers, and corrective actions shall be documented.				
101	PART IA, 4.3.2 [2] The purchaser shall ensure that this documentation is evaluated to determine the effectiveness of the supplier's quality system.				
102	PART IA, 4.4 Procurement documents issued at all tiers of procurement shall include the provisions of paragraphs 4.4.1 to 4.4.7 as deemed necessary by the purchaser.				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
103	PART IA, 4.4.1 The work scope to be performed by the supplier shall be specified in the procurement documents.				
104	PART IA, 4.4.2 Technical requirements shall be specified in the procurement documents. Where necessary, these requirements shall be specified by reference to specific drawings, specifications, codes, Work Plans, standards, regulations, procedures, or instructions, including revisions thereto, that describe the items or services to be furnished. As applicable, procurement documents shall provide identification of tests, inspections, and purchaser acceptance requirements for monitoring and evaluating the supplier's performance.				
105	PART IA, 4.4.3 [1] Procurement documents shall require that the supplier have a documented quality system that implements portions or all of the requirements of the purchaser's quality system. The extent of the system shall depend on the type and use of the item or service being procured.				
106	PART IA, 4.4.3 [2] The procurement documents shall require the supplier to incorporate the appropriate quality system requirements in subtier procurement documents.				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
107	<p>PART IA, 4.4.3 [3] When deemed appropriate, the purchaser may permit some or all of the supplier's activities to be performed under the jurisdiction of the purchaser's quality system, provided that the scope of the activity is adequately addressed. When these circumstances apply, the procurement documents shall specify those portions of the purchaser's quality policies and procedures that are applicable to the supplier's work efforts.</p>				
108	<p>PART IA, 4.4.4 At each tier of procurement, the procurement documents shall provide for access to the supplier's facilities and records for inspection or audit by the purchaser, their designated representative, or their authorized representatives.</p>				
109	<p>PART IA, 4.4.5 At all tiers, the procurement documents shall identify the documentation required to be submitted for information, review, or approval by the purchaser. The time of submittal shall also be established. When the purchaser requires the supplier to maintain specific records, the retention times and disposition requirements shall be prescribed.</p>				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
110	PART IA, 4.4.6 The procurement documents shall include the purchaser's requirements and procedures for reporting, approving, and dispositioning of the supplier's nonconformances.				
111	PART IA, 4.4.7 [1] The procurement documents shall require the identification of appropriate spare and replacement parts or assemblies and the appropriate delineation of the technical data and quality requirements applicable to ordering these parts or assemblies. The technical requirements and quality requirements shall be equal to or better than the original.				
112	PART IA, 4.4.7 [2] If the quality or technical requirements of the original item cannot be determined, an engineering evaluation shall be conducted by qualified individuals to establish the requirements. The evaluation shall be documented and shall consider the interchangeability, function, and safety of the item.				
113	PART IA, 4.5 Documents generated by suppliers shall be controlled, handled, and approved in accordance with established methods and documented procedures. Controls shall be implemented to ensure that the submittal of these documents is accomplished in accordance with the procurement document requirements. These controls shall provide for the acquisition, processing, and recorded evaluation of technical, inspection, and test data against the acceptance criteria.				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
114	<p>PART IA, 4.6 [1] A review of the procurement documents, and changes thereto, shall be made to ensure that documents transmitted to the prospective supplier(s) include appropriate provisions to ensure that items or services will meet the specified requirements. Reviews shall be performed and documented to provide objective evidence of satisfactory accomplishment of such reviews before contract award.</p>				
115	<p>PART IA, 4.6 [2] Changes made as a result of the bid evaluations or precontract negotiations shall be incorporated into the procurement documents. The review of such changes and their effects shall be completed before the contract award.</p>				
116	<p>PART IA, 4.6 [3] The procurement review shall include the following considerations:</p> <ul style="list-style-type: none"> a. Specification of the appropriate procurement requirements b. Determination of any additional or modified design criteria c. Analysis of exceptions or changes requested or specified by the supplier and a determination of the effects such changes may have on the intent of the procurement documents or the quality of the item or service to be furnished. 				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
117	PART IA, 4.6 [4] Reviews required by this section shall be performed by personnel who have access to pertinent information and have an adequate understanding of the requirements and intent of the procurement documents.				
118	PART IA, 4.7 Procurement document changes shall be subject to the same degree of control used in preparing the original documents. The purchaser and supplier shall ensure that provisions to control changes in procurement documents are established, implemented, and documented in accordance with this document.				
119	PART IA, 4.8 [1] Provisions shall be established and implemented to ensure that purchased items or services that are furnished by the supplier conform to established specifications, are of acceptable quality, and perform as expected.				
120	PART IA, 4.8 [2] Before offering the item or service for acceptance, the supplier shall verify that the item or service being furnished complies with the procurement requirements.				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
124	<p>PART IA, 4.8.1.1 When a Certificate of Conformance is used, the following criteria shall be met, as a minimum:</p> <p>a. The certificate shall identify the purchased material or equipment, such as by the purchase order number.</p> <p>b. The certificate shall identify the specific procurement requirements met by the purchased material or equipment, such as codes, standards, and other specifications. This may be accomplished by including a list of the specific requirements or by providing, onsite, a copy of the purchase order and the procurement specifications or drawings with a suitable certificate. The procurement requirements identified shall include any approved changes, waivers, or deviations applicable to the subject material or equipment.</p> <p>c. The certificate shall identify any procurement requirements that have not been met, with an explanation and the means for resolving the nonconformance.</p> <p>d. The certificate shall be signed or otherwise authenticated by a person who is responsible for this function and whose function and position are described in the purchaser's or supplier's quality system.</p> <p>e. The certificate 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 system.</p> <p>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.</p>				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
125	PART IA, 4.8.1.2 [1] When source verification is used, it shall be performed at intervals consistent with the importance and complexity of the item or service, and it shall be implemented to monitor, witness, or observe activities. Source verification shall be implemented in accordance with plans to perform inspections, examinations, or tests at predetermined points. 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.				
126	PART IA, 4.8.1.2 [2] Upon purchaser acceptance of source verification, documented evidence of acceptance shall be furnished to the receiving designation of the item, to the purchaser, and to the supplier.				
127	PART IA, 4.8.1.3 [1] When receiving inspection is used, purchased items shall be inspected, as necessary, to verify conformance to specified requirements, taking into account source verification, audit activities, and the demonstrated quality performance of the supplier.				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
128	<p>PART IA, 4.8.1.3 [2]</p> <p>Receiving inspection shall be performed in accordance with established procedures and inspection instructions to verify by objective evidence such features as proper configuration; identification; dimensional, physical, and other characteristics; freedom from shipping damage; and cleanliness. Receiving inspection shall be coordinated with review of supplier documentation when procurement documents require supplier documentation to be furnished before receiving inspection.</p>				
129	<p>PART IA, 4.8.1.4</p> <p>When post-installation testing is used, post-installation test requirements and acceptance documentation shall be mutually established by the purchaser and supplier.</p>				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
130	<p>PART IA, 4.9 In certain cases involving procurement of services only, such as third-party inspection; engineering and consulting services; and installation, repair, overhaul, or maintenance work, the purchaser shall accept the service by any or all of the following methods:</p> <p>a. Technical verification of data produced</p> <p>b. Surveillance and/or audit of the activity</p> <p>c. Review of objective evidence for conformance to the procurement document requirements, such as certifications and stress reports.</p>				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
131	<p>PART IA, 4.10 The purchaser and supplier shall establish and document provisions for the disposition of items and services that do not meet procurement documentation requirements. These methods shall contain provisions for the following:</p> <p>a. Evaluation of nonconforming items</p> <p>b. Submittal of a nonconformance notice to the purchaser by the supplier as directed by the purchaser. These submittals shall include supplier-recommended disposition (e.g., use-as-is or repair) and technical justification. Nonconformance to the procurement requirements or purchaser-approved documents that consist of one or more of the following shall be submitted to the purchaser for approval of the recommended disposition:</p> <ol style="list-style-type: none"> 1. When a technical or material requirement is violated 2. When a requirement in supplier documents that has been approved by the purchaser is violated 3. When a nonconformance cannot be corrected by continuing the original manufacturing process or by rework 4. When the item does not conform to the original requirement, even though the item can be restored to a condition where the capability of the item is unimpaired. <p>c. Purchaser disposition of supplier recommendation</p> <p>d. Verification of the implementation of the disposition</p> <p>e. Maintenance of records of supplier-submitted nonconformances.</p>				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
132	<p>PART IA, 4.11</p> <p>Where the design uses commercial-grade items, the following requirements are an acceptable alternative to other requirements of this section, except as noted in (b) below and the requirements of this document.</p> <p>a. The commercial-grade item is identified in an approved design output document. An alternate commercial-grade item may be applied if the cognizant design organization provides verification that the alternate item will perform the intended function and will meet design requirements applicable to both the replaced item and its application.</p> <p>b. Source evaluation and selection shall be completed, where determined necessary by the purchaser, based on complexity and importance to safety.</p> <p>c. Commercial-grade items shall be identified in the purchase order by the manufacturer's published product description, e.g., catalog number.</p> <p>d. After receipt of a commercial-grade item, the purchaser shall determine if the following is true.</p> <ol style="list-style-type: none"> 1. Damage was not sustained during shipment. 2. The item received was the item ordered. 3. Inspection and/or testing is accomplished, as required by the purchaser, to ensure conformance with the manufacturer's published requirements. 4. Documentation, as applicable to the item, was received and is acceptable. 				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
133	PART IA, 5.0 DOCUMENTS The system shall describe the provisions for ensuring that correct documents are used and shall describe timeliness guidelines for distribution of new or revised controlled documents.				
134	PART IA, 5.1 [1] The system shall describe the provisions that ensure that activities affecting quality are prescribed and performed in accordance with documented instructions, procedures, plans, and/or drawings of a type appropriate to the circumstances.				
135	PART IA, 5.1 [2] These documents shall include or reference appropriate quantitative and/or qualitative acceptance criteria for determining that prescribed activities have been satisfactorily accomplished.				

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136	PART IA, 5.2 [1] The system shall describe the provisions to control the preparation, review, approval, distribution, use, and revision of documents that establish policies, prescribe work, specify requirements, or establish design.				
137	PART IA, 5.2 [2] The document control system shall do the following: a. Identify documents to be controlled and their specified distribution. b. Identify responsibility for preparing, reviewing, approving, and issuing documents. c. Provide for review of documents for adequacy, completeness, and correctness before approval and issuance d. Define methods of control for user access to documents e. Provide for maintenance of record copies of controlled documents f. Describe the conditions or limitations applicable to uncontrolled copies.				
138	PART IA, 5.2 [3] Such control shall include measures to ensure that only correct documents are in use including the marking of record copies with "superseded" or "canceled" and maintenance of superseded documents for a specified retention period to provide a revision history.				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
139	PART IA, 5.3 [1] The system shall describe the methods for controlling document changes.				
140	PART IA, 5.3 [2] Document changes shall be controlled, reviewed, and approved as follows: a. Major Changes--Changes to documents other than those defined as "minor changes" are considered "major changes" and shall be reviewed and approved by the same organization(s) that performed the original review and approval, unless other organization(s) are specifically designated. b. Minor Changes--Changes to documents such as editorial corrections shall not require the same review and approval as the original documents. The type of minor changes that do not require such a review and approval and the persons who can authorize such a decision shall be clearly delineated.				
141	PART IA, 6.0 RECORDS Quality records shall be effectively controlled, protected, and maintained throughout their designated lifetimes. The system shall describe the requirements and responsibilities for quality record identification, preparation, approval, transmittal, distribution, retention, maintenance, and disposition.				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
142	PART IA, 6.1 [1] A quality records system shall be (1) established at the earliest practical time consistent with the schedule for accomplishing work activities and (2) in compliance with the requirements of the established quality system.				
143	PART IA, 6.1 [2] The system shall describe the provisions that ensure sufficient quality records (e.g., records of design, environmental conditions, applied research and development, procurement, construction, data acquisition, assessments, calibrations, inspections, field activities, testing, maintenance, and modification) are specified, prepared, reviewed, approved, and maintained to accurately reflect completed work.				
144	PART IA, 6.1 [3] Maintenance of quality records shall include provisions for retention, protection, preservation, traceability, accountability, and retrievability.				
145	PART IA, 6.1 [4] The system shall provide for special processing and control of quality records maintained on magnetic or optical media, such as computer codes or information on high density media or optic disks. The system shall provide hardware and software required to maintain and access quality records and shall ensure that the records are useable and retrievable over the specified media retention period.				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
146	PART IA, 6.2 [1] Documents that are designated to become quality records shall be identifiable, legible, accurate, complete, and appropriate to the work accomplished.				
147	PART IA, 6.2 [2] Documents and data referenced by final reports shall be retrievable from the records system, except for readily available references such as encyclopedias, dictionaries, engineering handbooks, and national codes and standards.				
148	PART IA, 6.3 Documents shall be considered valid (complete) quality records only if stamped, initialed, or signed and dated by authorized personnel or otherwise authenticated. Authentication may be a statement by the responsible individual or organization. These records may be originals or reproducible copies.				
149	PART IA, 6.4.1 Records and/or indexing systems shall provide sufficient information to permit identification between the record and the item(s) or activity(ies) to which it applies.				
150	PART IA, 6.4.2 The records shall be indexed. The indexing systems shall include, as a minimum, record retention times and the location of the record within the records system.				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
151	PART IA, 6.5 [1] Records shall be classified, retained, and dispositioned in accordance with the National Archives and Records Administration (NARA) General Records Schedule and DOE Order 1324.2A, <i>Records Disposition</i> . Inactive records shall be stored in accordance with the NARA standards. Active records requiring special handling, storage, and processing shall be maintained onsite.				
152	PART IA, 6.5 [2] Maintenance of active records shall include provisions for transmittal, distribution, retention, protection, preservation, traceability, accountability, disposition, and retrievability.				
153	PART IA, 6.6 [1] The system shall describe the provisions for appropriate quality record retention periods for life-time, post-closure, and nonpermanent records.				
154	PART IA, 6.6 [2] Records generated that become part of the administrative record shall be retained in accordance with Section 9.0 of the Tri-Party Agreement Action Plan.				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
155	<p>PART IA, 6.7</p> <p>The system shall describe the provisions for correcting records that contain errors or discrepancies. Such provisions shall provide for appropriate review or approval by the originating organization and shall identify or otherwise mark the correction by date and the identification of the person authorized to issue such correction.</p>				
156	<p>PART IA, 6.8</p> <p>The system shall describe provisions for the following:</p> <ul style="list-style-type: none"> a. Verifying that the records received are legible and agree with the transmittal document. b. Verifying that the records are those designated. c. Governing access to and control of the files. d. Maintaining control of and accountability for records removed from the storage facility. e. Providing for retrieval of information based on planned retrieval times and record type. f. Disposing of superseded records. 				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
157	<p>PART IA, 6.8.1 Records shall be stored in a manner sufficient to preclude deterioration. The following requirements shall apply.</p> <p>a. Provisions shall be made in the storage arrangement to prevent damage from moisture, temperature, and pressure.</p> <p>b. Records shall be firmly attached in binders or placed in folders or envelopes for storage in steel file cabinets or on shelving in containers.</p> <p>c. Provisions shall be made for special processed records (e.g., radiographs, photographs, negatives, microfilm, magnetic material) to prevent damage from excessive light, stacking, electromagnetic fields, temperature, and humidity.</p>				
158	<p>PART IA, 6.8.2 The system shall describe the provisions for controlling access to the files and limiting access to authorized personnel. Provisions shall be established to preclude the entry of unauthorized personnel in the storage area. These provisions shall guard against larceny and vandalism.</p>				
159	<p>PART IA, 6.8.3 The system shall also describe provisions to be taken to provide for replacement, restoration, or substitution of lost or damaged records.</p>				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
160	PART IA, 6.8.4 Records shall be stored in facilities constructed and maintained in a manner that minimizes the risk of damage or destruction from natural disasters, such as winds, floods, or fires; environmental conditions, such as high and low temperatures and humidity; and infestations of insects, mold, or rodents.				
161	PART IA, 7.0 COMPUTER SOFTWARE Computer software and computer hardware/software configurations covered by this document include, but are not limited to, experimental design, design analysis, modeling of environmental processes and conditions, operation or process control of environmental technology systems (including automated data acquisition and laboratory instrumentation), and databases containing environmental data.				
162	PART IA, 7.1 [1] The system shall describe the provisions for the configuration control of software and associated hardware and for using commercially acquired software.				
163	PART IA, 7.1 [2] Computer hardware/software configurations shall be documented and tested before actual use and the results shall be documented and maintained.				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
164	PART IA, 7.1 [3] Computer hardware/software configurations that are calibrated, i.e., software that is an integral part of measuring and test equipment, shall be controlled under Criterion 13 of the applicable Part of this document and shall not require further testing.				
165	PART IA, 7.1 [4] Changes to hardware/software configurations shall be assessed to determine the impact of the change on the technical and quality objectives of the environmental program supported. If any of the components are changed or modified, a new configuration results that shall be re-documented and re-tested.				
166	PART IA, 7.2 Software developed specifically by or for the user organization shall be developed in accordance with an appropriate standard that considers the complete life-cycle of the software, including, but not necessarily limited to, ASME NQA-2, Part 2.7, <i>Quality Assurance Requirements of Computer Software for Nuclear Facility Applications</i> , or ANSI/IEEE Standard 730-1989, <i>IEEE Standard for Software Quality Assurance Plans</i> . Such software shall be independently verified, validated, and documented to the extent appropriate in accordance with Criterion 1, paragraph 1.4.2, of this Part.				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
167	<p>PART IA, 7.3</p> <p>The system shall describe provisions for internal checks to be used to avoid errors in data processing. At every stage of data processing at which a permanent collection of data is stored, procedures shall specify the methods for ensuring data integrity and security are maintained and that data transfer is error-free or has an admissible error rate.</p>				
168	<p>PART IB, 8.0 (1)</p> <p>The system shall describe the provisions for management of those organizations implementing the quality system to periodically assess the adequacy of the system in order to ensure its effective implementation and continuous improvement.</p>				
169	<p>PART IB, 8.0 (2) MANAGEMENT ASSESSMENT</p> <p>The system shall describe the provisions for planning, performing, and reporting assessments annually to the senior official who has sufficient authority to enact corrective actions.</p>				
170	<p>PART IB, 8.0 (3)</p> <p>Management assessments shall focus on how well the integrated quality system is working and provide a means for determining and taking necessary corrective actions regarding the following:</p> <ul style="list-style-type: none"> a. The effectiveness of the system of management controls that are established to achieve and ensure quality b. The adequacy of resources and personnel to achieve and ensure quality. 				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
171	PART IB, 8.1 [1] Senior management shall retain overall responsibility for management assessments, and take prompt action and document decisions made in response to assessment recommendations. Direct participation by senior management during management assessments is essential. This process shall involve all levels of system and line management, as appropriate.				
172	PART IB, 8.1 [2] Follow-up shall include a review of the effectiveness of management's actions.				
173	PART IB, 8.2 The system shall describe the method for documenting and communicating the results of management assessments including provisions for the timely, routine, and wide dissemination of information pertinent to quality performance, such as the following: a. Status of development and implementation of quality system elements b. Status of resolution of significant quality problems c. Quality management practices and improvements d. Overall performance trend analysis results.				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
174	PART IB, 9.0 INDEPENDENT ASSESSMENTS The system shall describe the provisions for establishing and implementing a process of planned and periodic independent assessments, which shall focus on improving items and processes by emphasizing line organization's achievement of quality.				
175	PART IB, 9.1 [1] Personnel performing independent assessments shall act in a management advisory function. Their responsibilities are to monitor work performance, identify abnormal performance and precursors of potential problems, identify opportunities for improvement, report results to a level of management having the authority to effect corrective action, and verify satisfactory resolution of problems.				
176	PART IB, 9.1 [2] Personnel performing independent assessments shall be technically knowledgeable and shall not have direct responsibilities in the area they are assessing.				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
177	<p>PART IB, 9.2 [1] The system shall describe controls for the performance of independent assessments including, but not limited to, the following:</p> <ul style="list-style-type: none"> a. Assessment plans that identify the scope, requirements, assessment personnel, and processes/activities to be assessed b. Identification of lead assessor and assessment team members c. Notifications of assessment to affected organizations d. Pre-assessment conference e. Establishment of assessment methods and criteria f. Post-assessment conference g. Follow-up action by assessment team leader or management of assessment organization to verify timely written responses, adequacy of responses, and that corrective action has been identified and scheduled. 				
178	<p>PART IB, 9.2 [2] Assessments shall be conducted according to written procedures or checklists using criteria that describe acceptable work performance and promote improvement.</p>				
179	<p>PART IB, 9.3 Assessment results shall be tracked and resolved by management having responsibility in the area assessed. Followup review of deficient areas shall be initiated as necessary.</p>				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
180	<p>PART IB, 9.4</p> <p>Responses to assessments shall include the following, as applicable:</p> <ul style="list-style-type: none">a. Actions to correct the deficiencyb. Cause identificationc. Actions to prevent recurrencesd. Lessons learnede. Actions to be taken for improvement.				
181	<p>PART IB, 9.5</p> <p>Scheduling of assessments and allocation of resources shall be based on the status, risk, and complexity of the item or process being assessed. Scheduling shall be flexible, and additional attention shall be given to areas of questionable performance.</p>				

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PART II

Contractor: _____ Address: _____

Contract No.: _____

Preparer: _____ Telephone No.: _____ Date Submitted: _____

QMP No.: _____ QMP Title: _____ Rev. No.: _____

Approval Authority: _____ Address: _____

Reviewer: _____ Telephone No.: _____ Date Rec'd: _____

Approval Signature: _____ Date: _____

DOE/RL-90-28, REV. 2, COMPLIANCE CHECKLIST, PART II (cont'd)					Page 2 of 45
NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
1	PART IIA, 1.0 QUALITY MANAGEMENT SYSTEM The requirements of Part I, Criterion 1, shall apply with the following additions, amplifications, and/or modifications.				
2	PART IIA, 1.1 The policy statement shall include management's commitment to quality throughout the data generation and processing operations.				
3	PART IIA, 1.2 [1] The system shall identify, in organizational charts or other documentation, those key individuals, including the project manager(s) and quality assurance officer(s), who are responsible for (a) the review and approval of internal and external project plans and, (b) ensuring implementation of the quality system and projects for the collection, analysis, and verification of environmental data operations.				
4	PART IIA, 1.2, [2] The project manager(s) and quality assurance officer(s) shall review and approve the QA Project Plans described in Criterion 10 of this Part and ensure that each project plan contains procedures to document and report precision, accuracy, representativeness, comparability, and completeness (PARCC) of all data generated.				
5	PART IIA, 1.3.1 [1] The Quality Management Plan (QMP) shall describe those requirements and activities needed to ensure that data obtained meet the data quality objectives (DQOs) for the specific project.				

DOE/RL-90-28, REV. 2, COMPLIANCE CHECKLIST, PART II (cont'd)				
NO.	REQUIREMENT STATEMENT	SEC PAMA	SAT UNIT	COMMENTS
6	<p>PART IIA, 1.3.1 [2] Analytical chemistry or radiological laboratory QMPs shall be submitted to the regulators as secondary documents in accordance with Sections 6.5 and 7.8 of the <i>Tri-Party Agreement Action Plan</i> before the use of the laboratories.</p>			
7	<p>PART IIA, 1.3.2 [1] All projects involving the generation, acquisition, and use of environmental data shall be planned and documented.</p>			
8	<p>PART IIA, 1.3.2 [2] The PARCC of environmental data shall be defined in accordance with the DQOs. Data quality objectives shall be developed in accordance with the U.S. Environmental Protection Agency (EPA)/540G-87/003, <i>Data Quality Objectives for Remedial Response Activities, Development Process</i>. Determination of the type and quality of environmental data needed shall involve key users of the data as well as those responsible for activities affecting data quality.</p>			
9	<p>PART IIA, 1.3.2 [3] Planning activities shall be documented to ensure that participants involved in the environmental data operations are informed of and understand the requirements of the project in a timely manner. Results of planning activities shall be subject to review and approval before the start of work.</p>			

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ LIMIT	COMMENTS	CLOSED
10	<p>PART IIA, 1.3.2 [4] Project planning shall be coordinated among participating organizations and shall include the following elements:</p> <p>a. Definition of program/task scope and objectives and listing of the primary requirements and activities involved in the work. When appropriate, this includes the definition of the precise problem and the associated action to be taken.</p> <p>b. Identification of the type, quantity, and quality of the specific environmental data to be collected and analyzed, including those data that measure the success or failure of the project.</p> <p>c. Identification of applicable technical, regulatory, or program-specific quality standards, criteria, or objectives, e.g., acceptable sampling and measurement uncertainty and identification of procedures for quality verification and validation in accordance with WHC-SD-EN-AP-023, <i>A Proposed Data Quality Strategy for the Hanford Site Characterization</i>.</p> <p>d. Identification of personnel, equipment (including field and laboratory testing equipment, along with performance and calibration requirements), and other resources required to perform activities needed.</p> <p>e. Identification and control of special conditions required for the collection and analysis of environmental samples and data.</p> <p>f. Determination of assessment tools needed, i.e., program technical reviews, peer reviews, surveillance, and performance and systems audits, as applicable.</p> <p>g. Identification of methods or procedures for field and laboratory sampling, testing, and analysis activities, as well as the appropriate mechanism for making changes to work plans as described in Criterion 10 of this Part.</p> <p>h. Definition of records required.</p>				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
11	PART IIA, 2.0 PERSONNEL TRAINING AND QUALIFICATION The requirements of Part I, Criterion 2, shall apply with the following additions, amplifications, and/or modifications.				
12	PART IIA, 2.1, [1] Personnel performing quality-affecting tasks and functions related to environmental data operations shall have the required education, training, and qualifications. This includes, but is not limited to, scientists, engineers, laboratory technicians, analysts, maintenance technicians, supervisors, principal investigators, statisticians, project officers, and personnel conducting verification activities.				
13	PART IIA, 2.1 [2] Personnel responsible for planning and development of DQOs shall receive, as applicable, orientation to that process in accordance with EPA/540/G-87/004, <i>Data Quality Objectives for Remedial Response Activities, Example Scenario: RI/FS Activities at a Site with Contaminated Soils and Ground Water.</i>				
14	PART IIA, 3.0 QUALITY IMPROVEMENT The requirements of Part I, Criterion 3, shall apply with the following additions, amplifications, and/or modifications.				
15	PART IIA, 3.1 [1] The system shall describe provisions for control of samples that are no longer representative as a result of such factors as aging, deterioration, damage, contamination, or identity uncertainty.				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
16	PART IIA, 3.1 [2] Any sample that is suspect or known to be nonrepresentative shall be identified and its condition noted on the appropriate chain of custody, sample receipt, or other designated form.				
17	PART IIA, 3.1 [3] Any data that do not comply with specified data quality objectives shall be identified, e.g., flagged, and reviewed by technically competent personnel.				
18	PART IIA, 3.1 [4] Re-sampling shall be initiated for critical samples, i.e., where insufficient valid data points have been established for an important characteristic by the data user in accordance with the approved work plan.				
19	PART IIA, 3.1 [5] Data that will be reported in either primary or secondary documents as prescribed by the Tri-Party Agreement shall be validated in accordance with paragraph 15.2.6 of this Part.				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
20	<p>PART IIA, 3.2 Nonconforming conditions for environmental data operations shall include, but not be limited to, the following conditions:</p> <p>a. When established quality control limits for the measurement system are exceeded</p> <p>B. When assessments of data quality indicate that quality objectives are not being realized in accordance with completeness objectives</p> <p>c. When interlaboratory comparisons indicate that bias or imprecision is or may be present</p> <p>d. When instruments, standards, or reagents are found to be out of calibration, expired, or otherwise deficient, as applicable, and have been used to produce data</p> <p>e. When required conditions for analysis or other measurements, such as temperature, humidity, or voltage control, have not been maintained, and results may have been affected</p> <p>f. When errors are discovered in data transfer, reduction, or reporting</p> <p>g. When applicable requirements of the work plans or approved procedure are not met.</p>				
21	<p>PART IIA, 4.0 PROCUREMENT The requirements of Part I, Criterion 4, shall apply with the following additions, amplifications, and modifications.</p>				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
22	<p>PART IIA, 4.1 Where ER Program operations secure the support of outside contractor laboratories, the procurement documents shall require that the laboratory be certified in accordance with any applicable Federal, State, or local laboratory requirements and shall assure that EPA and Ecology (including contractor personnel) have access to laboratory personnel, equipment, and records related to sample collection, transportation, and analysis.</p>				
23	<p>PART IIA, 5.0 DOCUMENTS The requirements of Part I, Criterion 5, shall apply with the following additions, amplifications, and modifications.</p>				
24	<p>PART IIA, 5.1 Engineering, field, and laboratory operations procedures shall be standardized to the extent possible and written as standard operating procedures (SOPs). Operations or activities that shall be prescribed by SOPs include, but are not limited to, the following, as appropriate.</p> <ul style="list-style-type: none"> a. General network design b. Specific sampling site selection c. Sampling and analytical methodology d. Probes, collection devices, storage containers, and sample additives or preservatives e. Special precautions such as heat, light, reactivity, combustibility, and holding times 				

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NO.	REQUIREMENT STATEMENT	REC'D PASS	DATE LIBRAT	COMMENTS
		CLOSED		
24	<p>PART IIA, 5.1 (Cont'd)</p> <p>f. Federal reference, equivalent or alternative test procedures</p> <p>g. Instrumentation selection and use</p> <p>h. Calibration and standardization</p> <p>i. Preventive and remedial maintenance</p> <p>j. Replicate sampling</p> <p>k. Blind and spiked samples</p> <p>l. Co-located samplers</p> <p>m. Quality control procedures, such as intralaboratory and interlaboratory activities, and interlaboratory and interfield activities</p> <p>n. Documentation</p> <p>o. Sample custody</p> <p>p. Transportation</p> <p>q. Safety</p> <p>r. Data processing and handling procedures</p> <p>s. Data transfer and reduction procedures</p> <p>t. Data reporting and evaluation</p> <p>u. Service contracts</p> <p>v. Measurement of precision, accuracy, completeness, representativeness, and comparability</p> <p>w. Document control.</p>			

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
25	PART IIA, 5.2 The system shall describe the provisions for making minor field changes to approved work plans, i.e., changes that have no adverse effect on the technical adequacy of the job or work schedule. Such changes shall be documented in daily log books or equivalent records that are maintained in the field and subsequently reviewed for appropriateness by an authorized, technically competent authority.				
26	PART IIA, 6.0 RECORDS The requirements for records control shall be in accordance with Part I, Criterion 6, as applicable.				
27	PART IIA, 7.0 COMPUTER SOFTWARE The requirements for control of software shall be in accordance with Part I, Criterion 7, as applicable.				
28	PART IIB, 8.0 MANAGEMENT ASSESSMENTS The requirements for management assessments shall be in accordance with Part I, Criterion 8, as applicable.				
29	PART IIB, 9.0 (1) INDEPENDENT ASSESSMENTS The requirements of Part I, Criterion 9, shall apply with the following additions, amplifications, and/or modifications.				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
30	PART IIB, 9.0 [2] The system shall describe the provisions for the performance of system and performance audits necessary to monitor the capability and performance of measurement systems used for environmental data operations.				
31	PART IIB, 9.1 [1] The provisions for planning and conducting systems audits shall include evaluation of all components of the measurement system to determine their proper selection and use. Such provisions shall include evaluation of the adequacy, completeness, and effectiveness of field and laboratory quality control systems and procedures.				
32	PART IIB, 9.1 [2] System audits shall be performed before or shortly after systems are operational and thereafter on a regularly scheduled basis over the life of the project.				
33	PART IIB, 9.2 [1] The system shall describe provisions for planning and conducting performance audits. The requirements for such performance audits or evaluations are described in Criterion 15 of this Part under Field and Laboratory Inspection and Test Control.				
34	PART IIB, 9.2 [2] Records of all performance evaluations shall be maintained by the laboratory.				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
35	PART IIB, 9.2 [3] Laboratories who conduct analytical work in support of ER radiological monitoring programs for radioactive materials shall participate in the DOE interlaboratory quality assurance program coordinated by the DOE Environmental Measurements Laboratory (EML) to the extent that the EML Program is pertinent to the analyses being performed.				
36	PART IIB, 9.3 [1] The system shall describe the provisions for the surveillance of environmental data operations.				
37	PART IIB, 9.3 [2] Surveillance shall be conducted using criteria that describe acceptable work performance to verify that the organization, execution, and documentation of engineering, field, and laboratory activities and operations are in accordance with applicable standards, procedures, project requirements, and specifications.				

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DOE/RL-90-28, REV. 2, COMPLIANCE CHECKLIST, PART II (cont'd)

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
38	<p>PART IIB, 9.3 [3] The items and activities to be verified shall include, but not be limited to, the following:</p> <p>a. Field Activities</p> <ol style="list-style-type: none"> 1. General compliance with the work plan and procedures 2. Qualification of personnel 3. Sampling and testing methods and activities, including surveying and excavation operations 4. Classification, logging, and identification of project documents and reporting methods 5. Identification, handling, and storage of samples and materials. <p>b. Laboratory Activities</p> <ol style="list-style-type: none"> 1. General compliance with Laboratory Analytical Procedures 2. Qualification of laboratory personnel 3. Control and calibration of measuring and test equipment (M&TE) 4. Identification, control, and storage of samples 5. Documentation and verification of test data, results, conditions, and observations. 				
39	<p>PART IIB, 9.3 [4] The results of the surveillance and any observed opportunities for improvement shall be reported to line and program management along with recommendations to correct observed deficiencies.</p>				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
40	PART IIC, 10.1 [1] DESIGN CONTROL Environmental data operations shall be designed using sound engineering/scientific principles and appropriate standards. The design process for environmental data operations includes the design of field sampling events, sample handling and custody, analytical operations, data verification and validation methods, techniques for assessing limitations on data use, and data compilation for modeling and additional studies.				
41	PART IIC, 10.1 [2] The design process, including changes, shall incorporate applicable requirements, e.g., DQOs, State and Federal requirements, and design basis information (performance objectives), into design documents.				
42	PART IIC, 10.1 [3] Sampling design documents shall incorporate the provisions specified in WHC-SD-EN-AP-023, <i>A Proposed Data Strategy for Hanford Site Characterization</i> , as appropriate.				
43	PART IIC, 10.2 [1] The system shall describe the design processes to be used to ensure that all relevant activities pertaining to environmental data operations are identified, have established performance specifications, and are controlled appropriately.				

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DOE/RL-90-28, REV. 2, COMPLIANCE CHECKLIST, PART II (cont'd)

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
44	<p>PART IIC, 10.2 [2] The design process shall result in the specification and the review for suitability of the following:</p> <ul style="list-style-type: none"> a. Sample type and sampling location requirements b. Sample handling and custody requirements c. Sampling and analysis personnel requirements and qualifications d. Health and safety considerations e. Selection of analytical methods f. Analytical facility requirements g. Calibration and performance evaluation samples for analytical methods used h. Sampling or analytical instrumentation requirements i. Plans for readiness reviews before data collection j. Data processing management. 				
45	<p>PART IIC, 10.2 [3] The design process shall ensure that data are traceable to the sampling and analytical procedures, performance standards, analysts, and M&TE.</p>				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS
46	PART II.C, 10.2 [4] The extent of quantification of sampling and analysis shall reflect the intended use of the data and the PARCC (performance objectives) for such data.			
47	PART II.C, 10.3 [1] The system shall describe the provisions for documenting the results of the design process in a work plan for the activity. The work plan shall be relatable to the design inputs in sufficient detail to permit verification of the sampling design.			
48	PART II.C, 10.3 [2] The work plan shall be the primary project planning document governing the design and conduct of environmental data operations. The work plan shall describe the scope, nature, and data quality objectives of the tasks to be performed.			

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	BAT/ UNSAT	COMMENTS	CLOSED
49	<p>PART IIC, 10.3 [3] Documentation of design analyses shall include the following:</p> <p>a. A definition of the objective of the analyses</p> <p>b. A definition of design inputs and their sources</p> <p>c. The results of literature searches or other applicable background data</p> <p>d. Identification of assumptions and an indication of those that must be verified as the design proceeds</p> <p>e. Identification of any computer calculations, including computer type; computer programs (e.g., name); revision identification; inputs; outputs; evidence of or reference to computer program verification; and the bases (or reference thereto) that support application of the computer program to the specific physical problem</p> <p>f. Review and approval.</p>				
50	<p>PART IIC, 10.3 [4] The work plan shall be consistent, as applicable, with the guidance provided by EPA/540/G-89/004, <i>Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA</i>. The work plan shall include or reference the (1) Sampling and Analysis Plan (SAP), (2) Quality Assurance Project Plan (QAPjP), (3) Health and Safety Plan (HSP), and (4) Community Relations Plan as described briefly below.</p>				

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NO	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ LIBRAT	COMMENTS	CLOSED
51	PART IIC, 10.3.1 The SAP shall describe the objectives of the sampling efforts; phase of sampling; ultimate use of the data; sampling and analytical procedures; and types, locations, and frequency of samples to be taken.				
52	PART IIC, 10.3.2 The QAPjP shall describe the policies, organization, objectives, functional activities, and specific QA/QC activities designed to achieve the data quality goals of the specific project(s) or continuing operation(s) in accordance with EPA QAMS-005/80, <i>Interim Guidelines and Specifications for Preparing Quality Assurance Project Plans</i> .				
53	PART IIC, 10.3.3 The HSP shall describe the provisions for identifying and defining the specific health and safety requirements that are unique to the specific project based on the project location and conditions.				
54	PART IIC, 10.3.4 The CRP shall describe the community relations history, the issues of community concern, and the techniques that will be needed to achieve the objectives of the program.				
55	PART IIC, 10.4 [1] The system shall describe the provisions to ensure that data used for the design of environmental data operations that were not collected under a quality system in accordance with applicable QA/QC protocols are appropriately qualified.				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	RAT/ UNSAT	COMMENTS	CLOSED
56	PART IIC, 10.4 [2] Data shall be qualified in accordance with approved procedures that provide for documentation of the decision process and factors used in arriving at the choice of the qualification method and the decision to qualify the data for their intended use. Any limitations on data use shall be identified and fully documented.				
57	PART IIC, 10.5 [1] The system shall describe the provisions for verifying the adequacy of sampling and analysis design as specified in the work plan.				
58	PART IIC, 10.5 [2] The particular design verification method(s) used, the results of design verification, and the identification of the verifier(s) shall be clearly documented.				
59	PART IIC, 10.5 [3] Acceptable methods include, but are not limited to, technical reviews, peer reviews, and qualification tests, as applicable. The adequacy of the sampling design shall be verified by individuals or groups other than those who performed the work.				
60	PART IIC, 10.5 [4] Verification work shall be completed before approval and implementation of the design. If this timing cannot be achieved, the unverified portion of the design shall be identified and controlled.				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
61	PART IIC, 10.6 Work plans shall be reviewed and approved by authorized personnel and by appropriate regulatory agencies as applicable, including, but not limited to work plans classified as primary and secondary documents in the Tri-Party Agreement.				
62	PART IIC, 10.7 [1] The system shall describe the provisions for controlling changes to approved work plans. Such provisions shall ensure that changes are documented, justified, and subject to design control measures commensurate with those applied to the original design and that the design analysis for the revised sampling and analysis design is valid.				
63	PART IIC, 10.7 [2] Changes shall be approved by the same affected groups or organizations that reviewed and approved the original design documents or a technically qualified designee.				
64	PART IIC, 10.7 [3] Changes to work plans designated as primary or secondary documents shall be processed in accordance with change control provisions of the Tri-Party Agreement.				
65	PART IIC, 10.7 [4] Minor field changes to work plans that do not constitute design changes shall be controlled in accordance with Criterion 5 of this Part.				

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	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
66	PART IIC, 10.8 [1] The system shall describe the provisions for identifying and controlling design interfaces and coordinating design efforts among the participating organizations. Interface controls shall include the assignment of responsibility and the establishment of procedures among participating design organizations for the review, approval, release, distribution, and revision of documents involving design interfaces.				
67	PART IIC, 10.8 [2] Design information transmitted across interfaces shall be documented and controlled. Transmittals shall identify the status of the design information or document provided and, where necessary, identify incomplete items and/or processes that require further evaluation, review, or approval.				
68	PART IIC, 10.9 [1] Report(s) of the results of environmental data operations shall include or reference the basic data supporting all conclusions and recommendations. Sufficient information shall be provided to allow for independent analysis and evaluation during remedial design in accordance with Part III of this document.				
69	PART IIC, 10.9 [2] Reports shall be prepared and reviewed in accordance with written procedures providing for technical and/or peer review.				
70	PART IIC, 10.9 [3] Reports classified as primary or secondary documents in Section 9.0 of the Tri-Party Agreement shall be approved by authorized personnel and by appropriate regulatory agencies, as applicable.				

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NO	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
71	PART IIC, 10.9 [4] The content of such reports shall be in accordance with applicable portions of Section 7.0 of the Tri-Party Agreement and the appropriate provisions of EPA/540/G-89/004, <i>Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA or the Hazardous and Solid Wastes Amendments Portion of the Resource Conservation and Recovery Act Permit for the Treatment, Storage, and Disposal of Hazardous Waste No. WA7 89000 8967.</i>				
72	PART IIC, 10.10 Design documentation and records that provide evidence that the design of the environmental data operation(s) was properly accomplished shall include the final design output, important design steps (e.g., calculations, analysis, computer programs, etc.) and sources of input that support final output.				
73	PART IIC, 11.1 [1] PROCESS CONTROL The system shall describe the provisions for identifying and controlling the processes that directly affect the quality of environmental data operations. Such provisions shall ensure that environmental work processes are authorized and accomplished under controlled conditions using work plans, technical standards, instructions, procedures, or other appropriate means commensurate with the complexity and risk of the work.				
74	PART IIC, 11.1 [2] Environmental data operations shall be implemented according to the approved work plan as described in Criterion 10 of this Part.				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SMT/ UNSAT	COMMENTS	CLOSED
75	<p>PART IIC, 11.1 [3] The system shall describe the provisions for establishing, implementing, and maintaining procedures that ensure that the type and quality of environmental data required are obtained, process parameters are controlled, and specified environmental conditions are maintained.</p>				
76	<p>PART IIC, 11.2 The system shall describe the provisions for identifying and controlling processes, the results of which cannot be fully verified by subsequent inspection and testing of the results. Such methods shall include or reference qualification requirements for procedures, personnel, and equipment. Special processes that control or verify quality shall be performed by qualified personnel using approved procedures in accordance with specified requirements.</p>				
77	<p>PART IIC, 11.2.1 The system shall describe provisions for qualifying personnel, procedures, or equipment (1) for special processes not covered by existing codes and standards, or (2) where quality requirements specified for an item or activity exceed those of existing codes or standards.</p>				
78	<p>PART IIC, 11.2.2 The system shall describe the provisions for specifying applicable code and standard requirements, including acceptance criteria for the special process. Such provisions shall ensure that acceptance criteria and applicable code requirements are specified and referenced in instructions or procedures.</p>				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNEAT	COMMENTS	CLOSED
79	PART IIC, 11.3 The system shall describe the provisions for generating, identifying, and maintaining records of qualified personnel, procedures and equipment for each special process or, where applicable, for work processes. These records shall be maintained in accordance with Criterion 6 of this Part.				
80	PART IIC, 12.1 [1] SAMPLE CONTROL The system shall describe the provisions for identifying and controlling samples. Such provisions shall ensure that field and laboratory samples are identified and controlled in a manner consistent with their intended use.				
81	PART IIC, 12.1 [2] Such controls shall define the responsibilities (including interface between organizations) for documenting and tracking sample possession from sample collection through handling, preservation, shipment, transfer, storage, analysis, and disposition.				
82	PART IIC, 12.1.1 [1] Samples shall be identified by placing the identification directly on the samples when possible, or on their container, or on a label or tag attached to the samples or their container. Sample identification shall include all the information necessary for effective sample tracking.				
83	PART IIC, 12.1.1 [2] Sample traceability and identification shall be verified and documented before release for testing or analysis.				

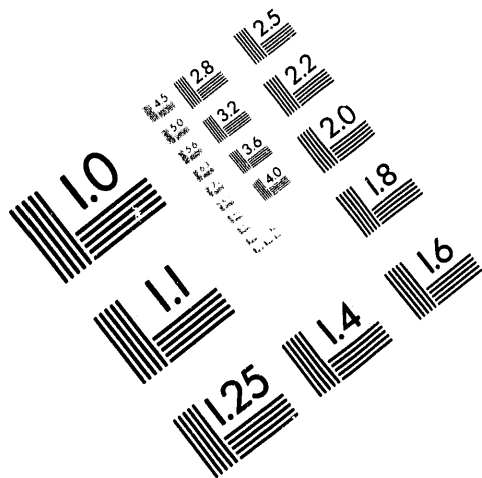
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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
84	PART IIC, 12.1.1 [3] Provisions shall be established and implemented to control samples with specified holding times to prevent reporting of invalid data				
85	PART IIC, 12.1.2 [1] The system shall describe the provisions for identifying and defining the interface and custody responsibilities for sample collection, analysis, storage, handling, and shipping. These provisions shall apply to field sampling and laboratory operations.				
86	PART IIC, 12.1.2 [2] Identification systems shall ensure documented traceability of samples from the initial source through final disposition.				
87	PART IIC, 12.1.2 [3]. Samples that have lost their identification shall be controlled and dispositioned in accordance with Part I, Criterion 3.				

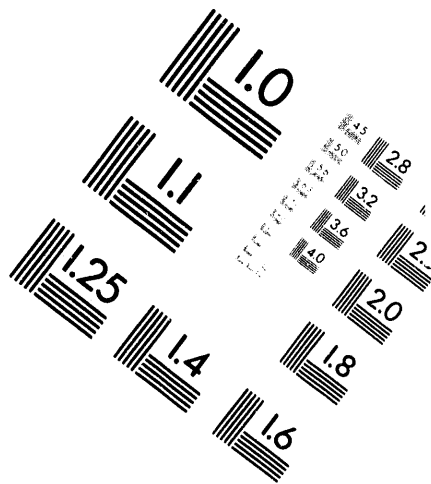
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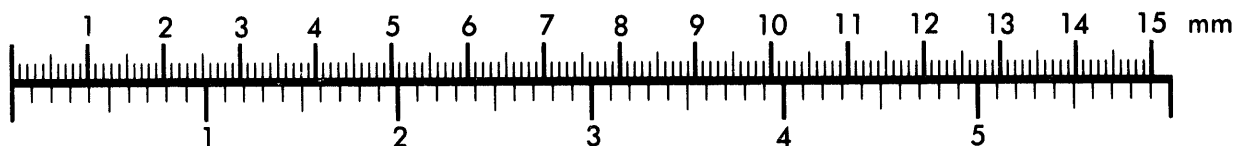
AIM

Association for Information and Image Management

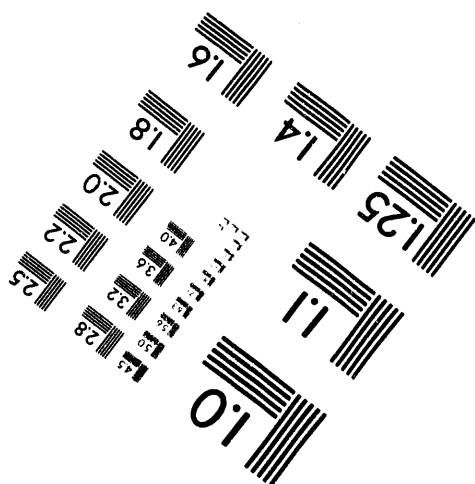
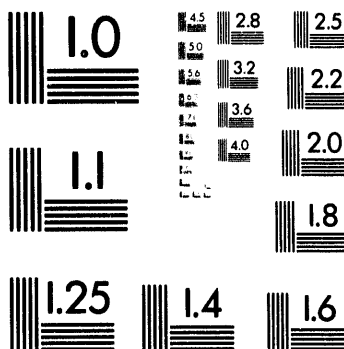
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Silver Spring, Maryland 20910
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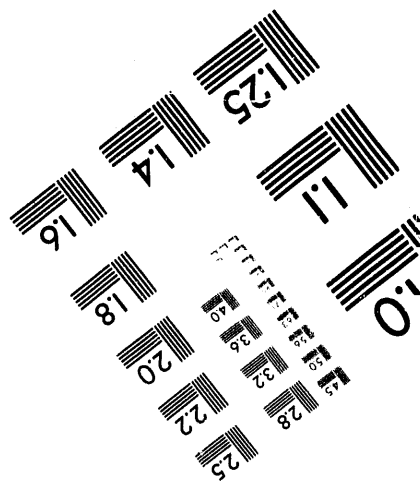
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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
88	PART IIC, 12.1.2 [4] Sample identification shall be transferred to each subdivision when the sample is split. The correctness of such transfers shall be verified.				
89	PART IIC, 12.1.2 [5] Where samples may be needed for legal purposes, "chain-of-custody" procedures, as defined in the <i>National Enforcement Investigation Center Policies and Procedures</i> , EPA-330/9-78-001-R, shall be used.				
90	PART IIC, 13.1 CONTROL OF MEASURING AND TEST EQUIPMENT The system shall describe provisions to ensure that tools, gauges, instruments, laboratory equipment, M&TE, and standards used in activities that affect quality are properly identified, controlled, and maintained.				
91	PART IIC, 13.2 The system shall describe the provisions for controlling the selection and use of M&TE to ensure that such equipment is of the proper type, range, and accuracy.				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
92	PART IIC, 13.3.1 Measuring and test equipment shall be calibrated against certified equipment or standards having known valid relationships to nationally recognized standards. Measuring and test equipment shall be calibrated, adjusted, and maintained at predetermined intervals or before use. If no nationally recognized standards exist, the basis for calibration shall be documented.				
93	PART IIC, 13.3.2 [1] The method and interval of calibration for each item shall be defined based on the type of equipment, stability characteristics, required accuracy, intended use, degree of use, and other conditions that affect measurement control.				
94	PART IIC, 13.3.2 [2] Measuring and test equipment shall be labeled, tagged, or otherwise documented to indicate the date calibrated and the due date of the next calibration and to provide traceability to calibration data.				
95	PART IIC, 13.3.2 [3] If the M&TE is found to be out of calibration, or if expired or suspect standards were used, the validity of previous inspection and/or test results and the acceptability of items previously inspected or tested, data gathered, or environmental measurements taken since the last calibration shall be evaluated. The evaluation shall be documented.				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
96	PART IIC, 13.3.2 (4) Devices that are out of calibration or whose accuracy is suspect shall be tagged and/or segregated and shall not be used until they have been recalibrated.				
97	PART IIC, 13.3.2 (5) If M&TE is consistently found to be out of calibration, it shall be repaired or replaced.				
98	PART IIC, 13.3.2 (6) Expired or suspect standards shall be identified and either disposed of or dispositioned in accordance with Criterion 3.0 of this Part.				
99	PART IIC, 13.3.3 Calibration controls may not be required for rulers, tape measures, levels, and like devices, if normal commercial equipment provides adequate accuracy.				
100	PART IIC, 13.3.4 Measuring and test equipment and standards shall be properly handled, preserved, and stored to maintain accuracy or purity in accordance with established practices.				

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NO	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
101	<p>PART IIC, 13.4 [1]</p> <p>The system shall describe the provisions for controlling and maintaining equipment and systems that would otherwise be subject to breakdown and when the breakdown could lead to safety hazards, environmental contamination, or loss of completeness and accuracy in data.</p>				
102	<p>PART IIC, 13.4 [2]</p> <p>As a minimum, the preventive maintenance shall include the following, as appropriate:</p> <p>a. A schedule of the important preventive maintenance tasks that must be carried out to minimize downtime of measurement systems</p> <p>b. A list of any critical spare parts that need to be on hand to minimize downtime.</p>				
103	<p>PART IIC, 14.1 [1] HANDLING, STORAGE, SHIPPING, AND DISPOSAL</p> <p>The system shall describe the provisions for the packaging, handling, storage, shipping, and preservation of samples to prevent damage and/or loss, minimize deterioration, and provide for final disposal.</p>				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
104	<p>PART IIC, 14.1 [2] The handling, storing, and shipping of samples shall be conducted in accordance with established instructions, procedures, or other pertinent documents specified for use in the activity. These documents shall include provisions for the following as appropriate:</p> <p>a. Consideration shall be given to the type of container, time constraints on perishable materials, and other environmental or safety considerations applicable to the sample(s).</p> <p>b. Contamination of samples shall be prevented during handling, storage, and shipping.</p> <p>c. Where multiple organizations are involved, appropriate procedures shall describe interface.</p> <p>d. Identification of samples shall be verified, and the chain-of-custody shall be maintained when samples are handled, transported, or transferred from one organization to another organization.</p>				
105	<p>PART IIC, 14.1.1 Storage requirements shall be specified and implemented to ensure that samples are maintained in predetermined physical and environmental conditions commensurate with their intended purpose. Sample characteristics, integrity, and identification shall be maintained during storage.</p>				
106	<p>PART IIC, 14.1.2 Transportation requirements shall be described and implemented in accordance with written procedures that conform to DOE; EPA; and Federal, State, and local regulations including those associated with the <i>Superfund Amendment and Reauthorization Act of 1986 (SARA)</i>, U.S. Department of Transportation (DOT), and Occupational Safety and Health Administration (OSHA).</p>				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
107	PART IIC, 14.1.3 Disposal requirements of waste materials (samples) resulting from environmental data operations shall be described and implemented in accordance with written procedures which conform to DOE; EPA; and Federal, State, and local regulations including those associated with SARA, DOT, and OSHA.				
108	PART IIC, 14.2 Special protective measures (e.g., containers, inert gas atmospheres, and specific temperature and moisture levels) shall be specified and provided when required to maintain acceptable quality.				
109	PART IIC, 14.3 When required for critical, sensitive, perishable, or exceptionally hazardous samples, specific procedures shall be developed and implemented for handling, storage, packaging, shipping, and preserving samples.				
110	PART IIC, 14.4 Special handling tools and equipment shall be used and controlled, as necessary, to ensure safe and adequate handling. Special handling tools and equipment shall be inspected and tested in accordance with procedures and at specified time intervals to verify that the tools and equipment are adequately maintained.				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
111	PART IIC, 14.5 Instructions regarding marking and labeling for packaging, shipping, handling, and storage of environmental samples shall be established, as necessary, to adequately identify, maintain, and preserve the samples, including indication of the presence of special environments or the need for special controls.				
112	PART IIC, 15.1 [1] FIELD AND LABORATORY INSPECTION AND TEST CONTROL The system shall describe the provisions that ensure inspections required to verify conformance of a sample or work process to specified requirements are planned and implemented. The results of all inspection activities shall be documented by the inspecting organization.				
113	PART IIC, 15.1 [2] These provisions shall provide for the following: a. Inspections to be performed in accordance with written procedures b. Criteria for determining what inspections are required and when inspections are performed c. Identification of mandatory hold points d. Identification of inspections requiring special expertise.				
114	PART IIC, 15.1.1 [1] Inspections shall be implemented by or for the organization performing the work to be inspected. Personnel shall not inspect their own work for acceptance.				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
115	PART IIC, 15.1.1 [2] The level of inspection and degree of independence of inspection personnel shall be based on risk and complexity as described in Criterion 1 of this Part.				
116	PART IIC, 15.1.2 Planning for inspection activities shall be accomplished and documented via inspection procedures, instructions, or checklists. Inspection procedures, instructions, or checklists shall provide for the following: a. Identification of characteristics and activities to be inspected b. A description of the method of inspection c. Identification of the individuals or groups responsible for performing the inspection operation d. Acceptance and rejection criteria e. Identification of required procedures, drawings, specifications, and revisions f. Specification of necessary M&TE g. Recording objective evidence of inspection results.				
117	PART IIC, 15.1.3 If mandatory inspection hold points are required, the specific hold points shall be indicated in appropriate documents. When such hold points are established, work shall not proceed without the specific consent of the responsible representative. These hold points shall be indicated in appropriate documents that control the activity.				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
118	PART IIC, 15.1.4 When a waiver of a specified hold point is accepted, the waiver shall be recorded on the document controlling the activity by the organization assigning the hold point before work can continue beyond the specified hold point.				
119	PART IIC, 15.1.5.1 In-process inspection or monitoring of environmental data operations shall be performed for work activities, where necessary, to verify quality. If inspection of data collection is impossible or disadvantageous, indirect control by monitoring of processing methods, equipment, and personnel shall be provided.				
120	PART IIC, 15.1.5.2 [1] Where a combination of inspection and process monitoring methods are used, they shall be performed in a systematic manner to ensure that the specified requirements for control of the process and quality of the item or data are being achieved throughout the duration of the process.				
121	PART IIC, 15.1.5.2 [2] In addition, where required, controls shall be established and documented for the coordination and sequencing of activities at established inspection points during successive stages of the process.				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	BAT/ UNSAT	COMMENTS	CLOSED
122	<p>PART IIC, 15.1.5.3 [1] Periodic evaluations to measure the performance of the field and/or laboratory data operations shall be performed and include comparisons against blind samples prepared by an independent outside source. The results shall be compared against predetermined acceptance limits set in advance of the evaluation.</p>				
123	<p>PART IIC, 15.1.5.3 [2] The items and activities to be evaluated shall include, but are not limited to, the following:</p> <ul style="list-style-type: none"> a. Evaluation of laboratory data for compliance b. Evaluation of data with respect to detection limits c. Evaluation of data with respect to control limits d. Correlation of field and laboratory data. 				
124	<p>PART IIC, 15.1.6.1 As appropriate, completed items and/or samples shall be inspected for completeness, markings, calibration, adjustments, protection from damage, or other characteristics as required to verify the quality and conformance of the items and/or samples to specified requirements. Quality records shall be examined for adequacy and completeness if not previously so examined.</p>				
125	<p>PART IIC, 15.1.6.2 Final inspections shall include a records review of the results and resolution of nonconformances identified by previous inspections. The final inspection shall be planned to reach a conclusion regarding conformance of data collected to specified requirements. When acceptance criteria are not met, deficiencies shall be resolved, and reinspection shall occur as required.</p>				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	BAT/ UNSAT	COMMENTS	CLOSED
126	PART IIC, 15.1.6.3 Items and/or the sample data shall be accepted, documented, and approved by authorized personnel using established acceptance criteria.				
127	PART IIC, 15.1.7 Inspection records shall be maintained in accordance with Criterion 6 of this Part.				
128	PART IIC, 15.1.7.1 As a minimum, inspection records shall identify the following: a. Item inspected b. Date of the inspection c. Inspector d. Type of observation (method of inspection) e. Evidence regarding the acceptability of the results.				
129	PART IIC, 15.1.7.2 Records of inspection personnel qualifications shall be established and maintained by the participant in accordance with Criterion 2 of this Part.				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
130	PART IIC, 15.2 The system shall describe the provisions for the control of field and laboratory tests and analyses related to environmental data operations and for confirming the need and applying for any laboratory certifications required from appropriate Federal, State, or local agencies.				
131	PART IIC, 15.2.1 [1] The system shall describe the provisions for the selection, evaluation, and maintenance (both routine and corrective) of equipment, facilities, and systems used in field and laboratory operations that might effect data quality.				
132	PART IIC, 15.2.1 [2] Provisions shall include controls for special environmental aspects of the facilities and equipment, e.g., temperature, humidity, lighting, and dust levels.				
133	PART IIC, 15.2.1 [3] The system shall describe a methodology that will ensure the maintenance requirements for general utilities and housekeeping services are maintained, e.g., voltage control, hoods, and gloveboxes. In addition, the system shall provide for the monitoring and inspection procedures, service manuals, maintenance procedures, and service agreements used to maintain performance standards for equipment and measurement systems, including essential ancillary equipment.				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	BAT/ LINEAT	COMMENTS	CLOSED
134	PART IIC, 15.2.2 [1] Test requirements shall be established and approved by the organization responsible for the environmental data operation. Test requirements shall be defined as an integral part of the design of the environmental data operation as described in Criterion 10 of this Part.				
135	PART IIC, 15.2.2 [2] The potential sources of uncertainty and error in test plans and procedures, including parameters that must be controlled and measured to ensure that tests are well controlled, shall be identified.				
136	PART IIC, 15.2.3 [1] Field and laboratory test activities shall be performed in accordance with written procedures that include acceptance criteria appropriate to the data quality objectives described in the work plan.				
137	PART IIC, 15.2.3 [2] Any deviation from an established procedure shall be documented and approved in accordance with written procedures.				
138	PART IIC, 15.2.3 [3] Test procedures shall include or reference test objectives and provisions for ensuring that prerequisites for the given test have been met, that adequate instrumentation is available and used, that necessary monitoring is performed, and that suitable environmental conditions are maintained.				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
139	<p>PART IIC, 15.2.3 [4] Test procedures shall be developed and include, but not be limited to, the following, as appropriate:</p> <ul style="list-style-type: none"> a. Instructions and prerequisites to perform the test b. Measures to ensure completeness and accuracy of the data c. Appropriate calibrated test equipment/instrumentation of the proper range commensurate with the test and data collection requirements. d. Provisions for characterization of test media (e.g., fluids) e. Personnel training and qualification requirements f. Acceptance criteria g. Inspection hold points h. Test article configuration. 				
140	<p>PART IIC, 15.2.3 [5] Prerequisites for test performance shall include verification of the following, as applicable:</p> <ul style="list-style-type: none"> a. Instrument calibration b. Appropriate equipment availability c. Trained personnel d. Readiness of facilities, equipment, supplies, and test samples e. Suitable environmental conditions f. Provisions for data acquisition. 				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
141	PART IIC, 15.2.3.1 Testing shall be performed in accordance with applicable, nationally recognized test standards(e.g., EPA/530-SW-846, <i>Test Methods for Evaluating Solid Waste Physical/Chemical Methods</i> ; ASTMs; Contract Laboratory Program Methods), as promulgated under the Tri-Party Agreement. Standards used without modification require documentation by reference only.				
142	PART IIC, 15.2.3.2 If no nationally recognized test standard exists, or if a standard method must be modified, the new or modified test procedure shall be documented in sufficient detail to be repeatable and shall be justified, evaluated, and approved in accordance with written procedures.				
143	PART IIC, 15.2.4 (1) The system shall describe the provisions for establishing and documenting the quality control checks required to ensure the continuing quality of laboratory and field measurements. Acceptance limits for the quality control checks shall be specified, and corrective action shall be required when these limits are exceeded.				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNEAT	COMMENTS	CLOSED
144	<p>PART IIC, 15.2.4 [2] Examples of quality control to be considered include, but are not limited to, the following:</p> <ul style="list-style-type: none"> a. Replicates b. Matrix spikes and matrix spike duplicates c. Split samples d. Control charts e. Blanks f. Internal standards g. Zero and span gases h. Quality control samples i. Surrogate samples j. Calibration standards and devices k. Reagent checks l. Background samples 				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ LIMIT	COMMENTS	CLOSED
145	<p>PART IIC, 15.2.5 (1)</p> <p>For each major measurement or test parameter (including all pollutant-measurement systems), routine procedures used to assess the precision, accuracy, and completeness of the measurement or test data shall be prepared and controlled (paragraph 15.2.3 of this Part). These procedures shall include the equations to calculate precision, accuracy, and completeness and the methods used to gather data or conduct tests for the precision and accuracy.</p> <p>Examples of procedures include, but are not limited to, the following:</p> <ul style="list-style-type: none"> a. Central tendency and dispersion: arithmetic mean, range, standard deviation, relative standard deviation, pooled standard deviation, and geometric mean b. Measures of variability: accuracy, bias, precision within laboratories and between laboratories, representativeness, comparability, and completeness c. Significant tests: u-test, t-test, F-test, and Chi-square test d. Confidence limits e. Testing for outliers. 				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ LIMIT	COMMENTS	CLOSED
146	<p>PART IIC, 15.2.5 [2] The following is a listing of EPA documents that include statistical procedures for assessing the PARCC of measurement or test data. The following documents shall be considered for use, as appropriate:</p> <p>a. <i>Quality Assurance Handbook for Air Pollution Measurement Systems</i>, Volume I, "Principles," EPA-600/9-76-005, March 1976.</p> <p>b. <i>Quality Assurance Handbook for Air Pollution Measurement Systems</i>, Volume II, "Ambient Air Specific Methods," EPA-600-4-77-027a, May 1977.</p> <p>c. <i>Quality Assurance Handbook for Air Pollution Measurement Systems</i>, Volume III, "Stationary Source Specific Methods," EPA-600/4-77-027b, August 1977.</p> <p>d. <i>Handbook for Analytical Quality Control in Water and Wastewater Laboratories</i>, EPA-600/7-77-088, August 1977.</p> <p>e. <i>Handbook for Analytical Quality Control and Radioactivity Analytical Laboratories</i>, EPA-600/7-77-088, August 1977.</p> <p>f. <i>Manual of Analytical Quality Control for Pesticides and Related Compounds in Human and Environmental Samples</i>, EPA-600/1-79-008, January 1979.</p>				
147	<p>PART IIC, 15.2.6 [1] Test results shall be documented and subsequently reviewed by a qualified, independent authority to ensure that test and/or data collection requirements and objectives have been satisfied. This evaluation for acceptability of test results shall be documented.</p>				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ LIMIT	COMMENTS	CLOSED
148	PART IIC, 15.2.6 [2] Reported data shall be accompanied by a calculation of precision and accuracy. Where appropriate, a statement of the completeness, representativeness, and comparability shall be included. Validation of analytical data packages shall be performed in accordance with WHC-SD-EN-AP-023, <i>A Proposed Data Quality Strategy for Hanford Site Characterization</i> .				
149	PART IIC, 15.2.7 [1] Test records shall be maintained in accordance with Criterion 6 of this Part and shall identify, but not be limited to, the following as appropriate: a. Test requirements, plans, and procedures, including revisions b. Sample tested c. Date of test d. Tester or data recorder e. Type of observation f. Results and acceptability for intended use g. Action taken in connection with deviations noted h. Person(s) evaluating test results i. Identification of test equipment used				
150	PART IIC, 15.2.7 [2] Analytical data packages shall include those record forms, information, and data required to accommodate validation activities (paragraph 15.2.6 of this Part).				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
151	PART IIC, 15.2.7 [3] Project reports containing data or reporting results of environmental data operations shall be reviewed independently to confirm that the results of data are presented correctly. Such reports shall be approved by designated line management for release, publication, distribution, or archiving in the records facility in accordance with the Tri-Party Agreement.				
152	PART IIC, 15.3.1 The status of inspection, test, and operating activities shall be identified either on the item or in documents traceable to the item where it is necessary to ensure that required inspections and tests are performed. Inspection or test status for samples shall be identified on the associated chain-of-custody or other applicable documentation.				
153	PART IIC, 15.3.2 Status shall be maintained through indicators, such as physical location and tag markings, sampling procedures, stamps, inspection records, or other suitable means. Procedures that describe status indicators and their use shall contain current actual examples of each type of indicator.				
154	PART IIC, 15.3.3 The authority for application and removal of status indicating tags, markings, labels, and stamps shall be described.				

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PART III

Contractor: _____ Address: _____

Contract No.: _____

Preparer: _____ Telephone No.: _____ Date Submitted: _____

QMP No.: _____ QMP Title: _____ Rev. No.: _____

Approval Authority: _____ Address: _____

Reviewer: _____ Telephone No.: _____ Date Rec'd: _____

Approval Signature: _____ Date: _____

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DOE/RL-90-28, REV. 2, COMPLIANCE CHECKLIST, PART III (cont'd)

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
1	PART IIIA, 1.0 QUALITY MANAGEMENT SYSTEM The requirements for the Quality Management System shall be in accordance with Part I, Criterion 1, as applicable.				
2	PART IIIA, 2.0 PERSONNEL TRAINING AND QUALIFICATION The requirements for training and qualification of personnel shall be in accordance with Part I, Criterion 2, as applicable.				
3	PART IIIA, 3.0 QUALITY IMPROVEMENT The requirements for quality improvement shall be in accordance with Part I, Criterion 3, as applicable.				
4	PART IIIA, 4.0 PROCUREMENT The requirements for control of purchased items/services and procurement document control shall be in accordance with Part I, Criterion 4, as applicable.				
5	PART IIIA, 5.0 DOCUMENTS The requirements for the development, approval, and control of documents shall be in accordance with Part I, Criterion 5, as applicable.				

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DOE/RL-90-28, REV. 2, COMPLIANCE CHECKLIST, PART III (cont'd)

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
6	PART IIIA, 6.0 RECORDS The requirements for quality records control shall be in accordance with Part I, Criterion 6, as applicable.				
7	PART IIIA, 7.0 COMPUTER SOFTWARE The requirements for control of software shall be in accordance with Part I, Criterion 7, as applicable.				
8	PART IIIB, 8.0 MANAGEMENT ASSESSMENTS The requirements for management assessments shall be in accordance with Part I, Criterion 8, as applicable.				
9	PART IIIB, 9.0 INDEPENDENT ASSESSMENTS The requirements for independent assessments shall be in accordance with Part I, Criterion 9, as applicable.				
10	PART IIIC, 10.1 [1] DESIGN CONTROL The design process shall be established and implemented using sound engineering/scientific principles and appropriate standards, including the U.S. Department of Energy Order 6430.1A, <i>General Design Criteria</i> .				

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DOE/RL-90-28, REV. 2, COMPLIANCE CHECKLIST, PART III (cont'd)

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
11	<p>PART IIIC, 10.1 [2] The system shall describe the provisions to ensure that the following control provisions are addressed.</p> <p>a. Applicable design objectives and inputs are appropriately specified on a timely basis.</p> <p>b. Design inputs are correctly translated into design output documents.</p> <p>c. Design interfaces are identified and controlled.</p> <p>d. Design output documents are verified by persons other than those who designed the item to ensure that they satisfy the design objectives and are technically correct.</p> <p>e. Design changes, including field changes, are governed by controls that are commensurate with those applied to the original design and that satisfactorily resolve any identified errors, omissions, or revised inputs.</p>				
12	<p>PART IIIC, 10.2 [1] The system shall describe the provisions for identifying, specifying, and documenting applicable design inputs, such as design bases, quality requirements, performance requirements, risk analysis, regulatory requirements, codes, and standards, including as applicable, EPA/530-SW-86-31, <i>Construction Quality Assurance for Hazardous Land Disposal Facilities</i>.</p>				
13	<p>PART IIIC, 10.2 [2] Such provisions shall ensure that applicable design inputs are reviewed and approved by the responsible design organization.</p>				

DOE/RL-90-28, REV. 2, COMPLIANCE CHECKLIST, PART III (cont'd)					
REQ. STATEMENT		SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
14	<p>PART IIIC, 10.2 [3] Before initiating preliminary design, the following shall be determined:</p> <ul style="list-style-type: none"> a. The goal of the structure, system, component, or facility b. The range of operating conditions c. The required degree of reliability d. The intended useful life e. How it can be constructed, maintained, repaired, or replaced. 				
15	<p>PART IIIC, 10.2 [4] The design input shall be specified and approved on a timely basis and to the level of detail necessary to permit the design activity to be carried out in a correct manner.</p>				
16	<p>PART IIIC, 10.2 [5] Also, the design input shall be specified and approved to provide a consistent basis for making design decisions, accomplishing design verifications, and evaluating design changes.</p>				
17	<p>PART IIIC, 10.2 [6] Changes from approved design inputs, including the reason for the changes, shall be identified, approved, documented, and controlled.</p>				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
18	<p>PART IIIC, 10.3.1 The responsible design organization shall describe the design process activities in accordance with the following requirements.</p> <p>a. Design development activities shall be prescribed in written, approved procedures to the level of detail necessary to permit the design to be carried out in a correct manner and to permit verification that the design meets applicable requirements.</p> <p>b. Design documents shall be adequate to support facility design, construction, and operation and shall include a description of lock and tag systems for turnover acceptance, maintenance, and system outages, as applicable.</p> <p>c. Appropriate technical and quality standards shall be identified and documented, and their selection shall be reviewed and approved. Deviations from specified quality standards, including the reasons for the deviations, shall be identified, approved, documented, and controlled.</p> <p>d. Design methods, materials, parts, equipment, and processes that are essential to the function of the structure, system, or component shall be identified and shall be reviewed for suitability of application.</p> <p>e. Applicable information, as set forth in reports or other documentation, shall be made available to cognizant design personnel. Whenever possible, design shall reflect experience gained on similar projects, processes, or types of construction.</p> <p>f. Architectural and engineering portions of the design shall be functionally analyzed during the conceptual, preliminary, and detailed design phases to avoid conflicts that could result in costly changes during construction.</p> <p>g. The final design (i.e., approved design output documents and approved changes thereto) shall (1) be relatable to the design input by documentation in sufficient detail to permit design verification and (2) identify assemblies and/or components that are part of the item being designed.</p>				

DOE/RL-90-28, REV. 2, COMPLIANCE CHECKLIST, PART III (cont'd)				
NO.	REQUIREMENT STATEMENT	SEC/ PARA	DATE/ LIMIT	COMMENTS
19	PART III C, 10.3.2 [1] The system shall describe the provisions for planning, controlling, and documenting design analyses.			
20	PART III C, 10.3.2 [2] Design analysis documents shall be legible and suitable for reproduction, filing, and retrieval.			
21	PART III C, 10.3.2 [3] They shall be sufficiently detailed as to purpose, method, assumptions, design input, references, and units, so that a person technically qualified in the subject can review and understand the analysis and can verify the adequacy of the results without recourse to the originator.			
22	PART III C, 10.3.2 [4] Calculations shall be identifiable by subject (including structure, system, or component to which the calculation applies), originator, reviewer, date, or by other data so that the calculations are retrievable.			

DOE/RL-90-28, REV. 2, COMPLIANCE CHECKLIST, PART III (cont'd)

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	RAT/ UNSAT	COMMENTS	CLOSED
23	<p>PART IIIC, 10.3.2.1</p> <p>Documentation of design analyses shall include the following:</p> <ul style="list-style-type: none"> a. A definition of the objective of the analysis b. A definition of design inputs and their sources c. The results of literature searches or other applicable background data d. Identification of assumptions and an indication of those assumptions that must be verified as the design proceeds e. Identification of any computer calculations, including computer type; computer programs (e.g., name); revision identification; inputs; outputs; evidence of or reference to computer program verification; and the bases (or reference thereto) that support application of the computer program to the specific physical problem f. Review and approval. 				
24	<p>PART IIIC, 10.3.2.2 [1]</p> <p>The requirements of computer software used for design shall be in accordance with Part I, Criterion 7, as applicable.</p>				

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DOE/RL-90-28, REV. 2, COMPLIANCE CHECKLIST, PART III (cont'd)

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
25	<p>PART IIIC, 10.3.2.2 [2] Computer programs may be used for design analysis without individual verification of the program for each application if the following statements are true.</p> <p>a. The computer program has been verified to show that it produces correct solutions for the encoded mathematical model within defined limits for each parameter used.</p> <p>b. The encoded mathematical model has been shown to produce a valid solution to the physical problem associated with the particular application.</p>				
26	<p>PART IIIC, 10.3.2.2 [3] Computer programs shall be controlled to ensure that changes are documented and approved by authorized personnel.</p>				
27	<p>PART IIIC, 10.3.2.2 [4] Where changes to previously verified computer programs are made, verification shall be required for the change, including evaluation of the effects of these changes on items a and b in this section.</p>				
28	<p>PART IIIC, 10.3.3 [1] The system shall describe the provisions for identifying and controlling design interfaces, including the coordination of design efforts among participating design organizations.</p>				

DOE/RL-90-28, REV. 2, COMPLIANCE CHECKLIST, PART III (cont'd)				
NO.	REQUIREMENT STATEMENT	SEC/ PAMA	SAT/ UNSAT	COMMENTS
29	PART III.C, 10.3.3 [2] Interface controls shall include assigning responsibility and establishing procedures among participating design organizations for the review, approval, release, distribution, and revision of documents that describe design interfaces.			
30	PART III.C, 10.3.3 [3] Design information transmitted across interfaces shall be documented and controlled.			
31	PART III.C, 10.3.3 [4] Transmittals shall identify the status of the design information on the document provided and, where necessary, shall identify incomplete items that require further evaluation, review, or approval.			
32	PART III.C, 10.3.3 [5] Where it is necessary to initially transmit design information orally or by other informal means, the transmittal shall be confirmed by a controlled document.			

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
33	PART IIIC, 10.3.4 Before installation, a commercial-grade assembly or component part may be modified or selected by special inspection and/or testing to requirements that are more restrictive than the supplier's published product description. In this case, the item shall be represented as different from the commercial-grade item in a manner traceable to a documented definition of the difference.				
34	PART IIIC, 10.4.1 [1] The system shall describe the provisions to be used to verify the adequacy of design.				
35	PART IIIC, 10.4.1 [2] Design verification shall be performed by qualified individuals or groups other than those who performed the original design but who may be from the same organization. This verification may be performed by the originator's supervisor, provided (1) the supervisor did not specify a singular design approach or rule out certain design considerations and did not establish the design inputs used in the design or (2) the supervisor is the only individual in the organization competent to perform the verification.				
36	PART IIIC, 10.4.1 [3] Cursory supervisory reviews do not satisfy the intent of this criterion. Design verification shall ensure that prepared drawings and construction specifications adequately incorporate quality assurance, design, and codes and standards requirements:				

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DOE/RL-90-28, REV. 2, COMPLIANCE CHECKLIST, PART III (cont'd)

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
37	PART IIIC, 10.4.2 Design verification shall be performed in a timely manner. Design verification, for the level of design activity accomplished, shall be performed before release for procurement, manufacture, and construction or before release to another organization for use in other design activities except in those cases where this timing cannot be met, i.e., when insufficient data exists. In those cases, the unverified portion of the design shall be identified and controlled. In all cases, the design verification shall be completed before relying on the item, component, system, or structure to perform its function and before installation becomes irreversible (e.g., requiring extensive demolition or rework).				
38	PART IIIC, 10.4.3 [1] The extent of the design verification required shall be based on risk, the importance to safety or waste remediation, the complexity of the design, the degree of standardization, the state of the art, and the similarity to previously proven designs.				
39	PART IIIC, 10.4.3 [2] Where the design has been subjected to a verification process in accordance with this document, the verification process need not be duplicated for identical designs. However, the applicability of standardized or previously proven designs, with respect to meeting pertinent design inputs, shall be verified for each application. Known problems affecting the standard or previously proven designs and their effects on other features shall be considered.				

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DOE/RL-90-28, REV. 2, COMPLIANCE CHECKLIST, PART III (cont'd)

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
40	PART IIIC, 10.4.3 [3] Design verification shall include, to the extent practicable, and particularly in the case of innovative design, a review of the practicability of construction or manufacturing.				
41	PART IIIC, 10.4.3 [4] The original design and associated verifications shall be adequately documented and referenced in the files of subsequent application of the design.				
42	PART IIIC, 10.4.4 Where changes to previously verified designs have been made, design verification shall be required for the changes. Verification shall include an evaluation of the effects of the changes on the overall design and on any design analyses upon which the design is based that are affected by the change to the previously verified design. Design changes shall be governed by paragraph 10.5 of this Part.				
43	PART IIIC, 10.4.5 [1] Acceptable verification methods include, but are not limited to, one or a combination of design reviews, alternate calculations, and qualification testing.				

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DOE/RL-90-28, REV. 2, COMPLIANCE CHECKLIST, PART III (cont'd)

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
44	PART IIIC, 10.4.5 [2] The particular design verification method(s) used and the results of design verification shall be clearly documented with the identification of the verifier indicated.				
45	PART IIIC, 10.4.5.1 Design reviews are critical reviews to ensure that the final design is correct and satisfies the requirements. Where applicable, the design review shall address the following: a. Selection of design inputs b. Adequacy of design assumption descriptions and reasonableness c. Appropriateness of design method d. Incorporation of design inputs into design e. Reasonableness of design outputs as compared to design inputs f. Inclusion of design input and verification requirements for interfacing organizations in design documents or in supporting procedures or instructions.				
46	PART IIIC, 10.4.5.2 These are calculations or analyses that are made with alternate methods to verify correctness of the original calculations or analyses. The appropriateness of assumptions, input data used, and the computer program or other calculation method used shall also be reviewed.				

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DOE/RL-90-28, REV. 2, COMPLIANCE CHECKLIST, PART III (cont'd)

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
47	PART IIIC, 10.4.5.3 [1] The system shall ensure that qualification test configurations are clearly defined and documented.				
48	PART IIIC, 10.4.5.3 [2] Testing shall demonstrate acceptable performance under conditions that simulate the most adverse design conditions. Operating or test modes and environmental conditions in which the item must perform satisfactorily shall be considered in determining the most adverse conditions.				
49	PART IIIC, 10.4.5.3 [3] Where the test is intended to verify only specific design features, the other features of the design shall be verified by other means.				
50	PART IIIC, 10.4.5.3 [4] Test results shall be documented and evaluated by the responsible design organization to ensure that test requirements have been met.				
51	PART IIIC, 10.4.5.3 [5] If qualification testing indicates that modifications to the item are necessary to obtain acceptable performance, the modification shall be documented, and the item shall be modified and retested or otherwise verified to ensure satisfactory performance.				

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DOE/RL-90-28, REV. 2, COMPLIANCE CHECKLIST, PART III (cont'd)

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
52	PART IIIC, 10.4.5.3 [6] When tests are being performed on models or mockups, scaling laws shall be established and verified. The results of model test work shall be subject to error analysis, where applicable, before use in final design work.				
53	PART IIIC, 10.5.1 [1] Changes to approved design documents, field changes, modifications to operating facilities, and nonconforming items dispositioned use-as-is or repair shall be justified and subject to design controls commensurate with those applied to the original design.				
54	PART IIIC, 10.5.1 [2] These controls shall ensure that the design analyses for the structure, system, or component are still valid.				
55	PART IIIC, 10.5.2 Changes shall be approved by the same affected groups or organizations that reviewed and approved the original design documents, except where an organization that originally was responsible for approving a particular design document is no longer responsible; then the ER Program Office or designee shall designate a new responsible organization. The designated organization shall have demonstrated competence in the specific design area of interest and shall have an adequate understanding of the requirements and intent of the original design.				

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DOE/RL-90-28, REV. 2, COMPLIANCE CHECKLIST, PART III (cont'd)

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
56	PART IIIC, 10.5.3 If a significant design change is necessary because of an incorrect design, the design process and verification procedure shall be reviewed and modified, as necessary.				
57	PART IIIC, 10.6 [1] Design documentation and records that provide evidence that the design and design verification processes were performed in accordance with the requirements of this part, shall be collected, stored, and maintained in accordance with documented procedures.				
58	PART IIIC, 10.6 [2] Design documents and records that are considered to be quality records shall include, but are not limited to, the following: a. Design origin references, input documents, and changes thereto b. Design inputs including sources c. Design calculations and analyses d. Design verification records e. Origin of data used, such as work plan, test, experiment, report, and publication f. Design output documents, such as drawings and specifications, including changes and revisions g. Documentation that identifies the important design steps.				

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DOE/RL-90-28, REV. 2, COMPLIANCE CHECKLIST, PART III (cont'd)

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
59	PART IIIC, 11.1 [1] PROCESS CONTROL The system shall describe the provisions for controlling processes affecting the quality of designed items and remediation processes.				
60	PART IIIC, 11.1 [2] Processes affecting quality shall be performed to established technical standards and administrative controls including, but not limited to, work plans, instructions, procedures, drawings, checklists, or travelers, or other appropriate means of detail commensurate with the complexity and risk of the work.				
61	PART IIIC, 11.1 [3] These means shall ensure that process parameters are controlled and that specified environmental conditions are maintained.				
62	PART IIIC, 11.2.1 [1] The system shall describe the provisions for identifying and controlling processes, the results of which cannot be fully verified by subsequent inspection and testing.				
63	PART IIIC, 11.2.1 [2] Controls shall include or reference qualification requirements for procedures, personnel, and equipment.				

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DOE/RL-90-28, REV. 2, COMPLIANCE CHECKLIST, PART III (cont'd)

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
64	PART IIIC, 11.2.1 [3] Special processes that control or verify quality shall be performed by qualified personnel using approved procedures in accordance with specified requirements.				
65	PART IIIC, 11.2.2 The system shall describe provisions for qualifying personnel, procedures, or equipment (1) for special processes not covered by existing codes and standards or (2) where quality requirements specified for an item or activity exceed those of existing codes or standards.				
66	PART IIIC, 11.2.3 The system shall describe the provisions for determining and specifying applicable code and standard requirements, including acceptance criteria for the special process. Such provisions shall ensure that acceptance criteria and applicable code requirements are specified and referenced in instructions or procedures.				
67	PART IIIC, 11.3 The system shall describe the provisions for generating, identifying, and maintaining records of qualified personnel, procedures, and equipment for each special process or, where applicable, for work processes. These records shall be maintained in accordance with Criterion 6 of this Part.				

DOE/RL-90-28, REV. 2, COMPLIANCE CHECKLIST, PART III (cont'd)

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	ACT/ UNSAT	COMMENTS	CLOSED
68	PART IIIC, 12.0 [1] MATERIAL CONTROL The system shall describe the provisions for ensuring that only correct and accepted materials are used or installed.				
69	PART IIIC, 12.0 [2] Identification shall be maintained on the item, its container, or in documents attached to the item from receipt to installation, or in a manner that ensures the identification is established and maintained.				
70	PART IIIC, 12.2 [1] Materials of production (e.g., batch, lot, component, or part) shall be identified from the initial receipt and fabrication of the materials up to and including installation and use. This identification shall relate an item to an applicable design or other pertinent specifying document.				
71	PART IIIC, 12.2 [2] Physical identification shall be used to the maximum extent possible. Where physical identification on the item is either impractical or insufficient, physical separation, procedural control, or other appropriate means shall be used.				
72	PART IIIC, 12.2.1 [1] When identification markings are used, they shall be applied with materials and methods that provide a clear and legible identification and shall not have a detrimental effect on the function or service life of the item.				

DOE/RL-90-28, REV. 2, COMPLIANCE CHECKLIST, PART III (cont'd)

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
73	PART IIIC, 12.2.1 [2] Markings shall be transferred to each part of an identified item when subdivided and shall not be obliterated or hidden by surface treatment or coatings unless other means of identification are substituted.				
74	PART IIIC, 12.2.2 When specified by codes, standards, or specifications that include specific identification or traceability requirements (such as identification or traceability of the item to applicable specification and grade of material; heat, batch, lot, part, or serial number; or specified inspection, test, or other records), the system shall be designed to provide such identification and traceability control.				
75	PART IIIC, 12.3 Where specified, materials having limited calendar or operating life or cycles shall be identified and controlled to preclude use of items whose shelf life or operating life has expired.				
76	PART IIIC, 12.4 Provisions shall be made to control item identification consistent with the planned duration and condition of storage, such as the following: a. Provisions for maintenance or replacement of markings and identification records caused by damage during handling or aging b. Protection of identification on items subject to excessive deterioration caused by environmental exposure c. Provisions for updating existing facility records.				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	BAT/ UNSAT	COMMENTS	CLOSED
77	PART IIIC, 13.1 CONTROL OF MEASURING AND TEST EQUIPMENT The system shall describe provisions to ensure that M&TE used in activities that affect quality are properly identified, controlled, calibrated, and adjusted at predetermined intervals to maintain accuracy within specified limits.				
78	PART IIIC, 13.2 The system shall describe the provisions for controlling the selection and use of M&TE to ensure that it is of the proper type, range, accuracy, and tolerance to accomplish its intended function of determining conformance to specified requirements.				
79	PART IIIC, 13.3.1 [1] Measuring and test equipment shall be calibrated against certified equipment having known valid relationships to nationally recognized standards.				
80	PART IIIC, 13.3.1 [2] Measuring and test equipment shall be calibrated, adjusted, and maintained at prescribed intervals or before use.				
81	PART IIIC, 13.3.1 [3] If no nationally recognized standards exist, the basis for calibration shall be documented.				

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NO.	MEASUREMENT STATEMENT	REQ PMA	SAT UNIT	COMMENTS	CLOSED
82	PART IIC, 13.3.2 [1] The method and interval of calibration for each item shall be defined based on the type of equipment, stability characteristics, required accuracy, intended use, and other conditions that affect measurement control.				
83	PART IIC, 13.3.2 [2] Measuring and test equipment shall be labeled, tagged, or otherwise documented to indicate the date calibrated and the due date of the next calibration and to provide traceability to calibration data.				
84	PART IIC, 13.3.2 [3] If the M&TE is found to be out of calibration, the validity of previous inspection or test results obtained and of the acceptability of items previously inspected or tested shall be evaluated and documented.				
85	PART IIC, 13.3.2 [4] A calibration shall be performed when the accuracy of equipment is suspect.				
86	PART IIC, 13.3.2 [5] Devices that are out of calibration shall be tagged and/or segregated and shall not be used until they have been recalibrated.				

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NO.	REQUIREMENT STATEMENT	SEC/ PAMA	DATE/ LIMIT	COMMENTS	CLOSED	
87	PART IIIC, 13.3.2 (6) If M&TE is consistently found to be out of calibration, it shall be repaired or replaced.					
88	PART IIIC, 13.3.3 Calibration controls may not be required for rulers, tape measures, levels, and similar devices, if normal commercial equipment provides adequate accuracy.					
89	PART IIIC, 13.3.4 Measuring and test equipment shall be handled and stored properly to maintain accuracy.					
90	PART IIIC, 14.1 (1) HANDLING, STORAGE, AND SHIPPING The system shall describe the provisions for handling, storage, shipping, cleaning, packaging, and preservation of items to prevent damage or loss and to minimize deterioration.					
91	PART IIIC, 14.1 (2) Items shall be handled, stored, and shipped in accordance with established work and inspection instructions, drawings, specifications, shipment instructions, or other pertinent documents or procedures specified for use in conducting the activity.					

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
92	PART IIIC, 14.2 When required for particular items, special equipment (e.g., containers, shock absorbers, and accelerometers) and special protective environments (e.g., an inert gas atmosphere, specific moisture content levels, and temperature levels) shall be specified and provided, and their existence shall be verified.				
93	PART IIIC, 14.3 When required for critical, sensitive, perishable, or high-value articles, specific procedures for handling, storing, packaging, shipping, and preserving items shall be used. -				
94	PART IIIC, 14.4 [1] Special handling tools and equipment shall be used and controlled, as necessary, to ensure safe and adequate handling.				
95	PART IIIC, 14.4 [2] Special handling tools and equipment shall be inspected and tested in accordance with procedures at specified time intervals to verify that the tools and equipment are adequately maintained.				
96	PART IIIC, 14.5 Operators of special handling and lifting equipment shall be experienced or trained in the use of the equipment. Training and experience shall be controlled in accordance with Criterion 2 of this part.				

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NO.	REQUIREMENT STATEMENT	REQ/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
97	<p>PART IIIC, 14.6 Instructions for marking and labeling items for packaging, shipping, handling, and storing items shall be established, as necessary, to adequately identify, maintain, and preserve the item. Marking and labeling shall include an indication of the presence of special environments or the need for special controls.</p>				
98	<p>PART IIIC, 15.1 [1] INSPECTION AND TEST CONTROL FOR ENGINEERED ITEMS The system shall describe the provisions that ensure inspections required to verify conformance of an item or activity to specified requirements are planned and implemented.</p>				
99	<p>PART IIIC, 15.1 [2] The results of all inspection activities shall be documented by the inspecting organization. These provisions shall provide for the following:</p> <ul style="list-style-type: none"> a. Inspections to be performed in accordance with written procedures. b. Criteria determining what inspections are required and when inspections are performed c. Identification of mandatory hold points d. Identification of inspections requiring special expertise. 				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	RAT/ UNSAT	COMMENTS	CLOSED
100	PART IIC, 15.1.1 Inspections shall be implemented by or for the organization performing the work to be inspected. Personnel shall not inspect their own work for acceptance. The level of inspection and degree of independence of inspection personnel shall be based on risk and complexity as described in Criterion 1 of this Part.				
101	PART IIC, 15.1.2 (1) Planning for inspection activities shall be accomplished and documented via procedures, instructions, or checklists.				
102	PART IIC, 15.1.2 (2) Inspection procedures, instructions, or checklists shall provide for the following: a. Identification of characteristics and activities to be inspected b. A description of the method of inspection c. Identification of the individuals or groups responsible for performing the inspection operation d. Acceptance and rejection criteria e. Identification of required procedures, drawings, specifications, and revisions f. Specifying necessary M&TE g. Recording objective evidence of inspection results.				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	DATE/ LIBRAT	COMMENTS	CLOSED
103	PART IIC, 15.1.3 When sampling is used to verify acceptability of a group of items and/or samples, the sampling procedures shall be based on recognized standard practices.				
104	PART IIC, 15.1.4 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.				
105	PART IIC, 15.1.5 A waiver of specified hold points by the authorized individual shall be documented before work can be continued beyond the designated hold point.				
106	PART IIC, 15.1.6.1 Inspection of items in process shall be performed for work activities, where necessary, to verify quality. If inspection of processed items is impossible or disadvantageous, indirect control by monitoring of processing methods, equipment, and personnel shall be provided. Both inspection and process monitoring shall be provided when control is inadequate without both.				

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NO.	REQUIREMENT STATEMENT	SEC PARA	RAT LIMIT	COMMENTS	CLOSED
107	<p>PART IIC, 15.1.6.2 (1) Where a combination of inspection and process monitoring methods are used, these methods shall be performed in a systematic manner to ensure that the specified requirements for control of the process and quality of the item are being achieved throughout the duration of the process.</p>				
108	<p>PART IIC, 15.1.6.2 (2) In addition, where required, controls shall be established and documented for the coordination and sequencing of activities at established inspection points during successive stages of the conducted process or construction.</p>				
109	<p>PART IIC, 15.1.7.1 (1) 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.</p>				
110	<p>PART IIC, 15.1.7.1 (2) Quality records shall be examined for adequacy and completeness if not previously so examined.</p>				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ LIBRARY	COMMENTS	CLOSED
111	PART IIC, 15.1.7.2 Final inspections shall include a records review of the results and resolution of nonconformances identified by previous inspections. The final inspection shall be planned to reach a conclusion regarding conformance of the item or activity to specified requirements.				
112	PART IIC, 15.1.7.3 The acceptance of an item shall be documented and approved by authorized personnel.				
113	PART IIC, 15.1.7.4 Modifications, repairs, or replacements of items performed subsequent to final inspection shall require reinspection or retests, as appropriate, to verify acceptability.				
114	PART IIC, 15.1.8 (1) Required in-service inspection or surveillance of structures, systems, or components shall be planned and executed by or for the organization responsible for operation.				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
115	<p>PART IIC, 15.1.8 [2] Inspection methods shall be established and executed to verify that the characteristics of an item continue to remain within specific limits. Inspection methods shall include evaluations of performance capability of essential emergency and safety systems and equipment; verification of calibration and integrity of instruments and instrument systems; and verification of maintenance, as appropriate.</p>				
116	<p>PART IIC, 15.1.9 [1] As a minimum, inspection records shall identify the following:</p> <ul style="list-style-type: none"> a. Item inspected b. Date of the inspection c. Inspector d. Type of observation (method of inspection) e. Evidence as to the acceptability of the results f. Reference to information on action taken in connection with nonconformances. 				
117	<p>PART IIC, 15.1.9 [2] Records of inspection personnel qualifications shall be established and maintained in accordance with Criterion 2 of this Part.</p>				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
118	PART IIIC, 15.2 (1) The system shall describe the establishment and implementation of testing processes that demonstrate that items and processes will perform as intended.				
119	PART IIIC, 15.2 (2) Testing shall include, as appropriate, bench tests and proof tests before installation, preoperational tests, post-maintenance tests, post-modification tests, and operational tests.				
120	PART IIIC, 15.2 (3) Testing shall be structured so that proving designs will not be confused with proofing the adequacy of work.				
121	PART IIIC, 15.2.1 (1) Testing shall be implemented by or for the organization performing the work to be tested. When an organization performs its own testing, personnel with the organization shall not test their own work for acceptance.				
122	PART IIIC, 15.2.1 (2) Item and process test requirements and acceptance criteria shall be provided by or approved by the organization responsible for design.				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
123	<p>PART IIIC, 15.2.1 [3] Administrative controls and status indicators shall be used to preclude inadvertent bypassing of required tests or operation of the item or process.</p>				
124	<p>PART IIIC, 15.2.2 [1] Test procedures shall include or reference test objectives and provisions for ensuring that prerequisites for the given test have been met, that adequate instrumentation is available and used, that necessary monitoring is performed, and that suitable environmental conditions are maintained.</p>				

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NO.	REQUIREMENT STATEMENT	REQ PARA	SAT/ LIMIT	COMMENTS	CLOSED
125	<p>PART IIIC, 15.2.2 [2] Test procedures shall include the following:</p> <p>a. Instructions and prerequisites to perform the test. Prerequisites shall include the following, as applicable:</p> <ol style="list-style-type: none"> 1. Calibrated instrumentation 2. Appropriate equipment 3. Trained personnel 4. Condition of test equipment and the item to be tested 5. Suitable environmental conditions 6. Provisions for data acquisition <p>b. Completeness and accuracy of data</p> <p>c. Use of test equipment</p> <p>d. Acceptance criteria</p> <p>e. Inspection hold points as required</p> <p>f. Test article configuration.</p>				
126	<p>PART IIIC, 15.2.2.1 In lieu of specifically prepared written test procedures, appropriate sections of related documents, such as American Society for Testing and Materials methods, supplier manuals, equipment maintenance instructions, approved drawings, or travelers with acceptance criteria, may be used. Such documents shall include adequate instructions to ensure the required quality of work.</p>				

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NO.	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
127	PART IIIC, 15.2.3 Test results shall be documented and evaluated by a responsible authority to ensure that test requirements have been satisfied. This evaluation for acceptance of test results shall be documented.				
128	PART IIIC, 15.2.4 Test results shall be generated and retained in accordance with Part I, Criterion 6, and, as a minimum, identify the following: a. Item tested b. Date of test c. Tester or data recorder d. Type of observation e. Results and acceptability for intended use f. Action taken in connection with any deviations noted g. Persons evaluating test results h. Identification of test equipment used i. Test requirements, plans, and procedures, including applicable revisions.				
129	PART IIIC, 15.3.1 (1) The system shall describe the provisions for identifying and maintaining the status of inspection and test activities, either on the items or in documents traceable to the items.				

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NO	REQUIREMENT STATEMENT	SEC/ PARA	SAT/ UNSAT	COMMENTS	CLOSED
130	<p>PART IIIC, 15.3.1 [2] Such provisions shall ensure that required inspections and tests are performed and that items that have not passed the required inspections and tests are not inadvertently installed, used, or operated.</p>				
131	<p>PART IIIC, 15.3.2 [1] Status shall be maintained through indicators, such as physical location and tags, markings, field or shop travelers, stamps, inspections records, or other suitable means.</p>				
132	<p>PART IIIC, 15.3.2 [2] Provisions shall be established to provide for identifying items that have satisfactorily passed required inspections, tests, and analysis where necessary to preclude inadvertent bypassing of such inspections and tests.</p>				
133	<p>PART IIIC, 15.3.2 [3] As appropriate, provisions shall also be established for indicating the operating status of structures, systems, and components, such as tagging valves and switches to prevent inadvertent operation.</p>				
134	<p>PART IIIC, 15.3.3 The authority to apply and remove status-indicating tags, markings, labels, and stamps shall be specified.</p>				

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