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Attachment 7

Quality Assurance Program

INFO ONLY

Effective Date

QUALITY RELATED

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1. PROGRAM OVERVIEW

1.1 This Program Directive (PD) establishes the overall Quality Assurance Program for the plant and Independent Spent Fuel Storage Installation (ISFSI) (facilities). The company goal is to "operate the facilities at the highest level of safety, reliability, and performance." As part of carrying out this goal, the company believes that proper attention to the quality of the efforts and the materials that go into the design, operation, maintenance, and modification of the facilities is essential.

1.2 The Quality Assurance Program reflects nuclear generation's total commitment to quality in the safety related aspects of design, procurement, modification, operation, maintenance, and support associated with the facilities.

1.3 Elements of the Quality Assurance Program are also applied to nonsafety related items and activities based on their potential to affect safe and reliable facility operation. License Renewal Aging Management Program documents and implementing procedures are also required to reference and comply with the Corrective Action Program.

1.4 The policies and requirements that make up the Quality Assurance Program are specified in this PD as well as other PDs and IDAPs. In addition, this PD provides a road map to those PDs that also contain quality assurance program requirements and which, in the aggregate, meet the requirements delineated in 10 CFR 50, Appendix B, and Chapter 17 of the DCPP FSAR Update.

1.5 This document was converted; therefore, revision bars are not included.

2. APPLICABILITY

2.1 This PD is applicable to all persons engaged in company nuclear quality related activities, whether company employees or contractors, for the facilities.

2.2 The Quality Assurance Program applies to safety related, important-to-safety, and graded items and activities as discussed in this PD.

3. DEFINITIONS

3.1 AMSAC Equipment: Equipment associated with the Anticipated Transient Without Scram Mitigation System Actuation Circuitry (AMSAC).

3.2 Graded Items and Activities: Nonsafety related items and activities for which a formalized quality assurance program is deemed appropriate.

3.3 Facility: Refers to either the nuclear power plant facility or the Independent Spent Fuel Storage Installation (ISFSI) facility. These facilities are defined as the Diablo Canyon Power Plant and the Diablo Canyon ISFSI, respectively.

3.4 Important-to-Safety: For the purpose of the facility Quality Assurance Program, "Important-to-Safety" is synonymous to "Safety Related," and both are included in the term "Quality Related."

3.5 Quality Assurance: All those planned and systematic actions necessary to provide assurance that a structure, system, or component will perform satisfactorily in service. It applies to all activities associated with doing a job correctly, as well as verifying and documenting satisfactory completion of the work.

3.6 Quality Control: Those quality assurance actions which provide a means to control and measure the characteristics of an item, process, activity, or facility to established requirements.

3.7 Quality Related: Items and activities covered by the Quality Assurance Program as defined in the DCPP FSAR Update, Chapter 17, and this Program Directive. This includes safety-related, important-to-safety, and graded QA items and activities.

3.8 Q-List: A detailed classification of the design and qualification requirements for nuclear plant structures, systems and components (SSCs).

3.9 Safety Related Items: Structures, systems, or components designed to remain functional during and following design basis events to assure:

3.9.1 The integrity of the reactor coolant pressure boundary.

3.9.2 The capability to shutdown the reactor and maintain it in a safe shutdown condition.

3.9.3 The capability to prevent or mitigate the consequences of accidents that could result in potential offsite exposures comparable to the guideline exposures of 10 CFR 100.

3.10 Safety Related Activities: Any activity that affects or could affect the ability of a safety related item to perform its intended function.

4. PROGRAM OBJECTIVES AND REQUIREMENTS

4.1 Objective

The objective of the Quality Assurance Program is to contribute to a work environment wherein all employees are responsible to conduct their activities per the highest quality standards. This is accomplished by:

4.1.1 Establishment of management systems that keep management apprised of the quality of the facility performance.

4.1.2 Preparation of, and training in, procedures and systems that help assure the safe, reliable maintenance, operation, and modification of the facility.

4.1.3 Preparation of design disclosure documents that correctly transfer design information in a clear manner that allows meeting all design commitments.

4.1.4 Procurement of materials and services from competent qualified suppliers who are provided all pertinent data to properly perform their tasks.

4.1.5 Overview by the quality organization to provide added assurance that systems and procedures are properly implemented and are effectively meeting their intended functions.

4.1.6 Tracking of problems to assure that adequate and timely corrective actions are taken.

4.1.7 Cooperative interaction between organizations.

4.2 Program Applicability

4.2.1 The Quality Assurance Program applies to the following:

a. Those plant structures, systems, and components classified as Design Class 1 in Section 3.2 of the DCPP FSAR Update.

b. Plant Category 1 Accident Instrumentation, as defined in USNRC Regulatory Guide 1.97, May 1983, "Instrumentation for Light Water Cooled Nuclear Power Plants to Assess Plant and Environs Conditions During and Following an Accident."

c. The design, construction, modification, operation, and maintenance of plant structures, systems, and components that prevent or mitigate the consequences of postulated accidents that could cause undue risk to the health and safety of the public. The structures, systems, and components that serve these functions are Design Class 1.

d. The design, construction, modification, operation, and maintenance of plant structures, systems, and components whose function is not as described above but whose failure could reduce the functioning of the above plant features to an unacceptable level or could incapacitate control room occupants. Certain of these structures, systems and components are conservatively designated as Design Class 1. Seismically induced system interaction (SISI) program requirements are governed by quality related procedure.

e. Activities affecting the above plant features.

f. Those aspects of the plant Independent Spent Fuel Storage Installation (ISFSI) that are important to safety.

g. Managerial and administrative controls to ensure safe operation of the ISFSI, both prior to issuance of a license and throughout the life of the licensed activity.

h. Activities that provide confidence that an ISFSI SSC will perform satisfactorily in service, including activities that determine that physical characteristics and quality of materials or components adhere to predetermined requirements.

4.2.2 Specific parts of the Quality Assurance Program also apply to certain systems and components and certain activities associated with them which are not classified as safety-related. These Quality Assurance Programs are called graded QA programs because not all of the 18 criteria of 10 CFR Part 50, Appendix B need be applied to them. The graded QA programs include:

a. Portions of the Fire Protection System are covered under the Quality Assurance Program described in OM8, "Fire Protection Program."

b. The Emergency Preparedness Program is covered under the Quality Assurance Program described in OM10, "Emergency Preparedness."

c. Portions of the Security Program are covered under the Quality Assurance Program described in OM11, "Security."

d. Portions of the Radiation Protection Program are covered under the Quality Assurance Program described in RP1, "Radiation Protection."

e. Portions of the Radiological Monitoring and Controls Program are covered under the Quality Assurance Program described primarily in CY2, "Radiological Monitoring and Controls Program." Part of this program is also described in CY1, "Chemistry/Radiochemistry."

f. Portions of the Nonradiological Environmental Monitoring Program are covered under the Quality Assurance Program described primarily in EV1, "EPP and NPDES Compliance and Monitoring." Part of this program is also described in CY1, "Chemistry/Radiochemistry."

g. Portions of the Radioactive Waste Management Program are covered under the Quality Assurance Program described in RP2, "Solid Low-Level Radioactive Waste Management."

h. Portions of the Fitness-for-Duty Program are covered under the Quality Assurance Program described in OM14, "Personnel Health and Fitness."

i. Certain instruments used for post accident monitoring are covered under the Quality Assurance Program described in CF3.ID12, "Graded Quality Program for Reg Guide 1.97 Category 2 and 3 Instrumentation."

j. Design Class II and III Equipment which requires seismic qualification is covered under the Quality Assurance Program described in CF3.ID11, "Seismic Configuration Control Program."

k. Portions of the ATWS Mitigation System Actuation Circuitry (AMSAC) are covered under the Quality Assurance Program described in OM5.ID5, "Quality Assurance Program for AMSAC Equipment."

l. Portions of the Chemistry/Radiochemistry Program are covered under a Quality Assurance Program described in CY1, "Chemistry/Radiochemistry."

4.2.3 Graded QA Program items and activities are identified in Attachment 9.4, "Matrix of Graded QA Programs and Program Directives" and Attachment 9.5, "Matrix of Graded QA Programs and Applicable 10 CFR 50, Appendix B Criteria," and shall only be subject to quality assurance requirements specified in the applicable PDs or IDAPs.

4.2.4 The structures, systems and components described in Sections 4.2.1 and 4.2.2 shall be identified on the Q-List.

4.2.5 Quality Assurance Program Requirements and Implementing Procedures

a. The Quality Assurance Program requirements are contained in the DCPP FSAR Update, Chapter 17, and the DCPP FSAR Update, Table 17.1-1, which identify other documents containing commitments to the USNRC.

b. PDs, IDAPs, DLAPs and Work Procedures and Instructions shall document the implementation of these requirements. If a revision to the DCPP FSAR Update quality assurance program description is determined to be necessary, that revision shall be evaluated and processed to meet the requirements of 10 CFR 50.54.

c. Attachment 1, "Matrix of 10 CFR 50, Appendix B Criteria and Program Directives," shows the principal PDs associated with the 18 criteria of 10 CFR 50 Appendix B.

d. Attachment 2, "Matrix of Additional QA Program Elements and Program Directives," lists the PDs that specify the quality assurance requirements associated with criteria 2 of 10 CFR 50 Appendix B.

e. Attachment 3, "Matrix of ANSI N18.7 (ANS 3.2) - 1976 Sections and Program Directives," lists the PDs that implement those specific elements of the QA Program.

f. Attachment 4, "Matrix of Graded QA Programs and Program Directives," identify the graded QA Programs.

g. Attachment 5, "Matrix of Graded QA Programs and Applicable 10 CFR 50, Appendix B Criteria," identifies which Appendix B criteria apply to each of the graded QA programs, although the scope of applicability may be limited by the specific graded QA Program.

h. The Geosciences and Applied Technical Services (ATS) organizations maintain QA Program administrative controls independent from DCPP. These administrative controls are specific to the Geosciences and ATS organizations, are reviewed and approved by the director, Quality Verification, and comply with the requirements listed in FSAR Update, Chapter 17.

i. Per the DCPP License Renewal Application, DCPP-specific Aging Management Program (AMP) documents and implementing procedures involving aging management activities for structures, systems, and components are required to reference and comply with the Corrective Action Program described in OM7. All AMPs are summarized in a supplement to the FSAR Update per 10 CFR 54.21(d).

4.2.6 When portions of the QA Program, including the Graded QA Programs, are delegated to suppliers, the provisions of those QA Programs applicable to the scope or activity are also imposed. The quality-related procurement control and procurement process shall also apply to such procurements. The responsibility for the overall quality program is retained by the company.

4.2.7 Annual Quality Assurance Program Assessment

a. The quality director shall report annually to the Chief Nuclear Officer on the effectiveness of the Quality Assurance Program and the quality organization's activities and operations. The assessment shall include the provisions specified in the DCPP FSAR Update, Section 17.2.

4.2.8 Interpretations of Quality Assurance Program Requirements

a. Questions or disputes involving interpretations of Quality Assurance Program requirements or of the commitments and requirements upon which they are based shall be referred to the quality director. The quality director shall document the response to requests for interpretations.

b. Quality matters and disputes that cannot be resolved by the quality director shall be referred to successively higher levels of management until the matter reaches a level that has direct authority over all contesting parties.

4.2.9 Stop Work Authority

a. The quality director shall have the authority to stop work when it does not conform to requirements of the Quality Assurance Program.

b. If stopping work would involve changing power level or separating a unit from service, concurrence with the decision to stop work shall be obtained from the Chief Nuclear Officer.

4.2.10 Quality Organization Personnel

a. Shall have direct access to the Chief Nuclear Officer, or director of their department.

b. Shall be sufficiently free from direct pressures for cost and schedule to effectively implement their responsibilities.

c. Shall have the authority to identify quality problems; initiate, recommend, or provide solutions to quality problems; and verify implementation of solutions to quality problems.

d. Shall have the organizational freedom to discuss quality related matters with department heads and the Chief Nuclear Officer.

e. Shall perform inspection, monitoring, or surveillance of items or activities affecting quality, as required, to assure safe and reliable facility operation.

5. RESPONSIBILITIES

5.1 Each employee is responsible for remaining aware of quality requirements applicable to his or her activities and implementing established quality practices in the performance of those activities.

5.2 Chief Nuclear Officer is responsible for:

5.2.1 Assuring the overall effectiveness of the Quality Assurance Program.

5.2.2 Authorizing stop work activities when such action will involve changing power level or separating a unit from service.

5.3 Vice presidents and directors who manage quality related activities are responsible for:

5.3.1 Implementing the requirements of the Quality Assurance Program.

5.3.2 Identifying quality related activities to be performed by their department.

5.3.3 Assuring that documented instruction for performing quality related activities are developed.

5.3.4 Assisting the quality director in evaluating the effectiveness of the Quality Assurance Program.

5.3.5 Providing sufficient resources, including personnel and materials, to accomplish quality related activities as planned.

5.4 Quality director is responsible for:

5.4.1 Reviewing and concurring with proposed changes to the Quality Assurance Program as documented in Chapter 17 of the DCPP FSAR Update. Reviewing and concurring with new quality related PDs and IDAPs and changes to administrative procedures that propose a change to the Quality Assurance Program, to determine that they continue to meet QA commitments and do not reduce the Program's effectiveness.

5.4.2 Reporting annually to management on the overall effectiveness of the Quality Assurance Program and proposing quality assurance program changes as appropriate.

5.4.3 Maintaining the Qualified Suppliers List (QSL), including review and approval of supplier quality programs.

5.4.4 Assisting in the resolution of conflicts in interpretation of the Quality Assurance Program.

5.4.5 Providing departments with assistance in identifying those activities that are quality related and which QA requirements apply to them when requested.

5.4.6 Exercising stop work authority.

5.4.7 Establishing an Organization responsible for performing independent inspection and audit/assessment functions for nuclear generation.

5.5 Engineering director is responsible for:

5.5.1 Identifying the safety related and graded items on the Q-List, and specifying their associated design and quality classifications.

5.5.2 Preparing, reviewing, approving, issuing and revising the Q-List in a controlled manner.

6. KEY IMPLEMENTING DOCUMENTS

6.1 Subjects Required to be Covered by IDAPs

6.1.1 Evaluation of quality assurance program changes that require a change to the quality assurance program description in Chapter 17 of the DCPP FSAR Update. The IDAP shall include requirements and should consider guidance from the following documents:

a. 10 CFR 50.54, Conditions of Licenses, Section (a).

b. DCPP FSAR Update, Units 1 and 2, Section 17.2.

c. ANSI/ANS-3.2, 1976, Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants.

6.1.2 Stop work authority. The IDAP shall include the requirements and should consider guidance from the following documents:

a. 10 CFR 50, Appendix B, Criterion 1, Organization.

b. DCPP FSAR Update, Units 1 and 2, Section 17.1.

6.1.3 Quality assurance controls applied to AMSAC Equipment. The IDAP shall include the requirements and should consider guidance from Company Letter No. DCL-88-049, March 2, 1988.

6.2 Subjects Required to be Covered by DLAPs

6.2.1 DLAPs may be developed to provide additional detailed direction and responsibilities associated with OM5 activities.

7. CLOSELY RELATED PROGRAMS

7.1 The PDs identified in Attachment 1, 2, 3, and 4 interface with this PD in defining the Quality Assurance Program. The following are the principal process interfaces through which data is transmitted or received by OM5.

7.1.1 AD1, "Administrative Controls Program"

a. AD1 controls the development and maintenance of PDs. Changes to PDs that would impact the commitments in the DCPP FSAR Update Quality Assurance Program description are evaluated per OM5 to determine if prior NRC approval is necessary. AD1 also ensures that PDs and implementing procedures are classified as "Quality Related" or "Nonquality Related" and describe responsibilities for review by the quality organization.

7.1.2 AD9, "Procurement Control"

a. Procurement Control assures that necessary materials, parts, components and services are available when needed to operate, modify and maintain the facilities in a safe, reliable, productive and cost-effective manner.

7.1.3 AD10, "Records"

a. AD10 provides for the retention, control, processing, and storage of quality related records.

7.1.4 CF3, "Design Control"

a. The identification of structures, systems, and components subject to quality requirements is provided by the Q-List, which is maintained per CF3.

7.1.5 OM4, "Nuclear Oversight Program"

a. OM4 provides for audits and assessments, review of results by management, review of important issues by standing review committees, and quality verification activities. It also provides for the review of annual reports on Quality Assurance Program effectiveness required by OM5.

7.1.6 TQ1, "Personnel Training and Qualification"

a. The training of personnel performing quality related activities shall be per TQ1.

7.1.7 XI3, "Licensing Basis Documents"

a. The Quality Assurance Program and Chapter 17 of the DCPP FSAR Update shall be maintained consistent. Changes to the FSAR Update(s) are controlled per XI3.

8. RECORDS

None

9. REFERENCES

9.1 DCPP Final Safety Analysis Report Update, Chapter 17

9.2 Company Letter No. DCL 88-049, March 2, 1988

9.3 ANSI N18.7/ANS 3.2-1976, Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants

9.4 USNRC Regulatory Guide 1.33, February 1978, "Quality Assurance Program Requirements (Operation)"

9.5 USNRC Regulatory Guide 4.15, 12/77, "Quality Assurance for Radiological Monitoring Programs (Normal Operations) - Effluent Streams and the Environment"

9.6 10 CFR 50, Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants"

9.7 10 CFR 50.54, Conditions of Licenses

9.8 QA Commitment: ANSI N45.2

9.9 QA Commitment: DCPP FSAR Sections 17.1, 17.2, and 17.5

9.10 QA Commitment: NRC Safety Guide 28.

Matrix of 10 CFR 50, Appendix B Criteria and Program Directives

Criteria	PDs																								
	AD									CF						MA			OM				OP		TS
	1	2	3	4	5	7	9	10	13	1	2	3	4	5	6	1	2	3	1	4	5	7	1	2	2
Organization																			X						
Quality Assurance Program																					X				
Design Control										X	X	X	X	X	X										
Procurement Document Control							X																		X
Instructions, Procedures and Drawings	X	X				X																			
Document Control			X																						
Control of Purchased Material				X			X							X											X
Identification and Control of Materials, Parts and Components										X				X										X	
Special Processes																		X							
Inspection					X																				
Test Control									X																
Control of Measuring and Test Equipment																	X								
Handling, Storage, and Shipping														X											

Matrix of 10 CFR 50, Appendix B Criteria and Program Directives

Criteria	PDs																								
	AD									CF						MA			OM				OP		TS
	1	2	3	4	5	7	9	10	13	1	2	3	4	5	6	1	2	3	1	4	5	7	1	2	2
Inspection, Test and Operating Status					X				X	X						X						X	X	X	
Nonconforming Materials, Parts or Components																						X			
Corrective Action																						X			
Quality Assurance Records								X																	
Audits																				X					

Matrix of Additional QA Program Elements and Program Directives

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Criterion 2 Elements	PDs																					
	AD		CY		EV		OM									OP	RP		TQ	XI		
	1	5	1	2	1	2	3	4	5	7	8	10	11	14	15	1	1	2	1	1	3	4
Applicability									X													
QA Program Controls	X								X												X	
Endorsed Standards									X													
QA Program Assessment								X	X													
Program Interpretations									X													
Personnel Training & Qualification																			X			
Commitment Management																						X
Operations																X						
Correspondence and Reporting																				X		
Supplier QA Programs								X	X	X												
Standing Committees								X														
Quality Trending								X		X												
Stop Work Authority									X													
Quality Organization									X													
Quality Audits/Reviews								X														
QC Surveillance and Inspections		X						X														
ECP Hotline							X															
Management review of QA Program Performance								X							X							

Matrix of ANSI N18.7 (ANS 3.2) - 1976, Sections and Program Directives

Admin. Controls & QA Requirements (From ANS 3.2 Table of Content)	Primary PDs	Other Related PDs					
3.0 Owner Organization							
3.1 General	OM1	AD9	OM5				
3.2 Assignment of Authority and Responsibility	OM1	OM4	OM5				
3.3 Indoctrination and training	TQ1	TQ2					
3.4 Onsite Operating Organization	OP1	OM10					
4.0 Reviews and Audits							
4.1 General	OM4	OM5					
4.2 Program Description	OM4	AD9					
4.3 Independent Review Program	OM4	TS3	XI3				
4.4 Review Activities of the Onsite Operating Organization	OM4	OP1					
4.5 Audit Program	OM4	AD9	OM10				
5.0 Programs, Policies and Procedures							
5.1 Program Description	OM5	CF3 CY1	CY2 EV1	OM8 OM10	OM11 OM14	RP1	XI4
5.2 Rules of Practice	OP1	OM10					
5.2.1 Responsibility and Authority of Operation Personnel	OP1	OM12					
5.2.2 Procedure Adherence	AD2	AD1	OM7	OP1			
5.2.3 Operating Orders	OP1	AD1					
5.2.4 Special Orders	OP1	AD1					
5.2.5 Temporary Procedures	AD1						
5.2.6 Equipment Control	OP1	AD5 AD9	AD13	CF4 CF5	MA1	OM7	OP2
5.2.7 Maintenance and Modification	MA1/CF4	AD7	AD13	CF3			
5.2.8 Surveillance Testing and Inspection Schedule	AD5/ AD13						
5.2.9 Plant Security and Visitor Control	OM11						
5.2.10 Housekeeping and Cleanliness Control	AD4						
5.2.11 Corrective Actions	OM7						
5.2.12 Plants Record Management	AD10	AD3					
5.2.13 Procurement and Materials Control	AD9/CF5	CF3	OM4	RP1	TS6		
5.2.14 Nonconforming Items	OM7	AD5 AD9	AD13	CF5	MA1	OP1	OP2
5.2.15 Review, Approval and Control of procedures	AD1	AD2	AD3	CF3	CF4	OM7	TS3

Matrix of ANSI N18.7 (ANS 3.2) - 1976, Sections and Program Directives

Admin. Controls & QA Requirements (From ANS 3.2 Table of Content)	Primary PDs	Other Related PDs					
5.2.16 Measuring and Test Equipment	MA2	AD1	CF5				
5.2.17 Inspection	AD5	AD1	AD2	AD9	AD13	TQ1	
5.2.18 Control of Special Processes	MA3	TQ1					
5.2.19 Test Control	AD13	AD1	MA1				
5.3 Preparation of Instructions and procedures							
5.3.1 Procedure Scope	AD1	AD2	AD13				
5.2.3 Procedure Content	AD1	AD13					
5.3.3 System Procedures	AD1	OP1					
5.3.4 General Plant Procedures	AD1	AD13	OP1	RP1	TS6		
5.3.5 Maintenance Procedures	AD1	AD7	CF4	MA1	OP2		
5.3.6 Radiation Control Procedures	AD1	CY2	RP2				
5.3.7 Calibration and Test Procedures	AD1	MA2					
5.3.8 Chemical-Radiochemical Control Procedures	AD1	CY1	RP1	RP2			
5.3.9 Emergency Procedures	AD1	OM10	OP1				
5.3.10 Test and Inspection Procedures	AD1	AD2	AD5	AD7	AD13		

Matrix of Graded QA Programs and Program Directives

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Graded QA Programs (Sect. 4.2.2) PDs	Primary Implementing										
	CF3	CY1	CY2	EV1	OM5	OM8	OM10	OM11	OM14	RP1	RP2
Fire Protection						X					
Emergency Preparedness							X				
Security								X			
Radiation Protection										X	
Radiological Monitoring and Controls Program		X	X								
Environmental Monitoring		X		X							
Radioactive Waste Management											X
Fitness for Duty									X		
Regulatory Guide 1.97 Category 2 and 3 Instruments (Post Accident Monitoring)	X										
Class II Seismic Configuration Control	X										
AMSAC					X						
Chemistry/Radiochemistry		X									

List of Administrative Procedures which specify the Graded QA requirements:

- CF3, "Design Control"
  - CF3.ID11, "Seismic Configuration Control Program"
  - CF3.ID12, "Graded Quality Program for Reg Guide 1.97, Category 2 and 3 Instrumentation"
- CY1, "Chemistry/Radiochemistry"
- CY2, "Radiological Monitoring and Controls Program"
- EV1, "EPP and NPDES Compliance and Monitoring"
- OM5, "Quality Assurance Program"
  - OM5.ID5, "Quality Assurance Program for AMSAC Equipment"
- OM8, "Fire Protection Program"
- OM10, "Emergency Preparedness"
- OM11, "Security"
- OM14, "Personnel Health and Fitness"
- RP1, "Radiation Protection"
- RP2, "Solid Low-Level Radioactive Waste Management"

Matrix of Graded QA Programs and Applicable 10 CFR 50, Appendix B Criteria

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Applicable 10 CFR 50, Appendix B Criteria (1)	Graded QA Programs												
	AMSAC	Chemistry/ Radiochemistry	Seismic Configuration Control	Emergency Preparedness	Environmental Monitoring	Fire Protection	Fitness for Duty	RP	Radiological Monitoring & Controls Program	Radioactive Waste Management	Regulatory Guide 1.97 Instruments (Post Accident Monitoring) Category 2 and 3	Security	ISFSI ITS SSCs
1. Organization	(2)				(2)	(2)	(2)	(2)	(2)	(2)		(2)	X
2. QA Program	X	X	X	X	X	X	X	X	X	X	X	X	X
3. Design Control	X		X			X			X	X	X		X
4. Procurement Document Control	X	X	X		X	X	X	X	X	X	X		X
5. Instructions Procedures and Drawings	X	X	X	X	X	X	X	X	X	X	X	X	X
6. Document Control	X	(3)	(3)	X	(3)	(3)	X	X	(3)	(3)	(3)	(3)	X
7. Control of Purchased Material, Equipment, and Services	X	X	X			X	X	X		X	X		X
8. Identification and Control of Materials, Parts, and Components	X	X	X			X		X		X	X		X
9. Control of Special Processes	X									X			X

Matrix of Graded QA Programs and Applicable 10 CFR 50, Appendix B Criteria

Applicable 10 CFR 50, Appendix B Criteria (1)	Graded QA Programs												
	AMSAC	Chemistry/ Radiochemistry	Seismic Configuration Control	Emergency Preparedness	Environmental Monitoring	Fire Protection	Fitness for Duty	RP	Radiological Monitoring & Controls Program	Radioactive Waste Management	Regulatory Guide 1.97 Instruments (Post Accident Monitoring) Category 2 and 3	Security	ISFSI ITS SSCs
10. Inspection	X					X				X	X		X
11. Test Control	X					X				X	X		X
12. Control of Measuring and Test Equipment	X	X		X	X		X	X	X	X	X		X
13. Handling, Storage and Shipping	X							X		X			X
14. Inspection, Test, and Operating Status	X					X				X	X		X
15. Nonconforming Materials, Parts, or Components	X	X	X	X	X	X	X	X	X	X	X	X	X
16. Corrective Action	X	X	X	X	X	X	X	X	X	X	X	X	X
17. QA Records	X	X	X	X	X	X	(4)	X	X	X	X	(5)	X
18. Audits	X	(6)	(6)	(7)	X	X	X	X	X	X	(6)	X	X

(1) Graded QA programs implement the Appendix B criteria indicated by an "X" in the matrix. However, the application of the criteria may be limited. Each graded program explains the limitations of application of the noted criteria.

(2) The delineation of the authorities and duties of those performing quality assurance and control functions and the organizational freedom to report and resolve problems is implicit whenever those functions are performed. This is also a requirement of OM1, Organization, and OM5, Quality Assurance Program.

(3) The application of criteria 6, Document Control, is implicit whenever approved documents (procedures instructions and drawings, etc.) are required. It is also a requirement of AD1, Administrative Controls Program, and AD9, Procurement Control.

(4) Records shall be retained per 10 CFR Part 26.

(5) Records to be retained per security plans and procedures.

(6) Audit of all aspects of the QA program is a requirement of ANSI N18.7-1976, Section 4.5.

(7) Audit of the Emergency Preparedness Program is performed per 10 CFR 50.54(t).