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December 5, 2005

U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

**ATTENTION:** Document Control Desk

**SUBJECT:** Calvert Cliffs Nuclear Power Plant  
Unit Nos. 1 & 2; Docket Nos. 50-317 & 50-318  
Nine Mile Point Nuclear Station  
Unit Nos. 1 & 2; Docket Nos. 50-220 & 50-410  
R.E. Ginna Nuclear Power Plant  
Docket No. 50-244

Request for Approval of a Common Quality Assurance Program for  
Constellation Generation Group, LLC

Constellation Generation Group, LLC (CGG) is submitting a common Quality Assurance Topical Report (QATR) for your review and approval in accordance with the provisions of 10 CFR 50.54(a). The fleet common QATR is being submitted to better align operation of our three nuclear sites by allowing corporate governance through common procedures and policies. The proposed QATR is included as attachment 1 to this letter. The program described in the QATR will be applied to 10 CFR Part 50 licensed activities. We also request Nuclear Regulatory Commission (NRC) review and approval to apply the QATR to 10 CFR Part 71 and 10 CFR Part 72 activities in accordance with 10 CFR 71.101(f) and 10 CFR 72.140(d), respectively. Upon approval and implementation, the QATR will replace the current site-specific QA programs for the Calvert Cliffs Nuclear Power Plant, Inc. (CCNPP), Nine Mile Point Nuclear Station, LLC (NMPNS), and R.E. Ginna Nuclear Power Plant, LLC (Ginna).

The current three site-specific QA programs were initially developed during the design and construction phases for the units at each site and differ in a number of respects due to the various time frames in which they were developed. The proposed QATR was written to standardize the nuclear fleet to a common QA program based on American Society of Mechanical Engineers (ASME) NQA-1-1994 Part I, *Quality Assurance Program Requirements for Nuclear Facilities*, and American National Standards Institute (ANSI) N18.7-1976/ American Nuclear Society (ANS)-3.2, *Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants*. The QATR conforms to the format of the NRC Standard Review Plan 17.3, *Quality Assurance Program Description*. In order to facilitate development and review of the QATR, the transition to a common QA program from site-specific QA programs utilizes either:

- NRC endorsed standards; or
- Previously approved alternatives or exceptions

2004

## DISCUSSION

The QA program descriptions were previously stand-alone documents for CCNPP and Ginna. The QA program description for NMPNS Units 1 and 2 is a Topical Report that is Appendix B of their respective Safety Analysis Reports. The proposed QATR is a Topical Report separate from but referenced in the applicable facility Safety Analysis Reports. In consolidating the current programs, the QATR is a completely new document in structure compared to the previous programs, therefore no marked-up copy is being provided.

Attachment 2, *QA Program Comparison Matrix*, of this submittal provides a comparison of each plant's existing program with the new QATR, identifies any changes considered to be reductions in commitment, and provides a basis for concluding the program in the proposed QATR continues to meet 10 CFR Part 50, Appendix B requirements. Because of the extensive formatting differences involved, we consider that the combination of the QATR and the site comparison matrices included with this letter fulfill the requirement of 10 CFR 50.54(a)(4)(ii) to submit all pages affected by the change.

The major changes and clarifications made to the former separate QA programs to establish the fleet QA program are described in the following paragraphs:

- Constellation Generation Group, LLC commits to American National Standards Institute/American Society of Mechanical Engineers (ANSI/ASME) NQA-1-1994, Part I as the basic QA standard. This replaces the sites' current commitments to ANSI N45.2 and the programmatic daughter standards, and to ANSI/ASME NQA-1-1983 and the 1983 Addenda. This commitment is consistent with 10 CFR 50.54(a)(3)(ii), which allows "The use of a quality assurance alternative or exception approved by an NRC safety evaluation, provided that the bases of the NRC approval are applicable to the licensee's facility." Regulatory Guide 1.28, *Quality Assurance Program Requirements (Design and Construction)*, Revision 3 endorses ANSI/ASME NQA-1-1983 and 1983 addenda as a method acceptable to the NRC staff for complying with the provisions of 10 CFR Part 50, Appendix B, with regard to establishing and implementing the requisite QA program for the design and construction of nuclear power plants. The NRC staff examined Exelon's side-by-side comparison of ANSI/ASME NQA-1-1983 and ASME NQA-1-1994, Part I equivalence and concurred with Exelon in finding ASME NQA-1-1994, Part I is an acceptable basis for their operational QA program (Reference a). Where we have determined that exceptions and alternatives to NQA-1-1994, Part I requirements are appropriate, we have described them within the text of the QATR. Attachment 4, *Table of CGG QATR Exceptions/Alternatives*, is a compilation of exceptions, including sources of NRC approval.
- Non-programmatic QA requirements for the planning and execution of identified tasks during the fabrication, construction, modification, repair, maintenance, and testing of structures, systems, and components for nuclear facilities are set forth in NQA-1-1994, Part II. Consistent with 10 CFR 50.54(a)(3)(ii), we are committing to Subparts 2.3, *Quality Assurance Requirements for Housekeeping for Nuclear Power Plants*, and 2.8, *Quality Assurance Requirements for Installation, Inspection, and Testing of Mechanical Equipment and Systems for Nuclear Power Plants*, of NQA-1-1994 as described in QATR Section A.7.3 and Attachment 4 to this letter.
- Constellation Generation Group, LLC has proposed to standardize on the administrative requirements of ANSI N18.7-1976/ANS 3.2, as endorsed by Regulatory Guide 1.33, Revision 2, by incorporating these requirements into the text of the QATR. The principal difference between ANSI N18.7-1976/ANS-3.2 and NQA-1-1994 is that the inclusion of administrative controls were not incorporated into NQA-1-1994. Attachment 3 compares ANSI N18.7-1976/ANS-3.2

guidance with the proposed QATR and the applicable requirements of NQA-1-1994 and shows that, where differences exist between the two standards, those requirements have been included in the QATR. The NRC staff previously reviewed similar comparisons performed by Nuclear Management Company and Dominion Nuclear Connecticut and found their approaches acceptable (References c and d). Nine Mile Point Unit 1 Technical Specifications, Section 6.4.1, requires adherence to ANSI N18.7-1972, Sections 5.1 and 5.3, and to using the applicable procedures recommended in Regulatory Guide 1.33, Appendix A, November 3, 1972. Nine Mile Point Unit 1 will continue to meet these requirements and the additional requirements imposed by the CGG QATR.

- In accordance with 10 CFR 50.54(a)(3)(v), which allows “The elimination of quality assurance program information that duplicates language in quality assurance regulatory guides and quality assurance standards to which the licensee is committed,” appropriate sections in the QATR contain a quality standard reference that describes commitments to related NQA-1-1994 sections. Because these quality standards are referenced in the QATR, they will be reviewed in determining station quality requirements. Information previously covered in the site QA programs that is more appropriately covered in implementing procedures will be addressed in those procedures. These changes and the level of detail are consistent with the provisions approved by the NRC staff in the SER to Nuclear Management Company (Reference c).
- Key organization positions are described in Section A.2 of the QATR. Titles and position functions for responsible individuals are described consistent with 10 CFR 50.54(a)(3)(iii), which allows “The use of generic organizational position titles that clearly denote the position function, supplemented as necessary by descriptive text, rather than specific titles.” Organization charts in the QATR, Appendix E show additional functional relationships, authorities, and responsibilities consistent with 10 CFR 50.54(a)(3)(iv), which allows “The use of generic organizational charts to indicate functional relationships, authorities, and responsibilities, or, alternately, the use of descriptive text.”
- Management and independent review activities are described in the QATR in terms of minimum requirements for review functions, committee size, and quorum that are based on the requirements contained in ANSI N18.7-1976/ANS-3.2. The committees at the station level currently have different criteria for what comprises a committee and a quorum of the committee. The proposed QATR allows for those differences while ensuring that the committees continue to function within the NRC regulatory guidance. The overall review functions remain the same in that: (1) each facility continues to have an onsite committee to review specific items and advise the Plant General Manager; and (2) the offsite committee reviews the facility review functions and independent audits and advises the Chief Nuclear Officer. To facilitate the common QA program, the qualification requirements for review personnel are being updated to ANS-3.1-1993 as endorsed by Regulatory Guide 1.8, Revision 3. These changes and the level of detail are consistent with the provisions approved by the NRC staff in the SER to Dominion Nuclear Connecticut (Reference d).
- The Independent Safety Evaluation Group (ISEG) function is addressed in the current QA program for NMPNS only, thus the control of changes is governed by 10 CFR 50.54(a). Ginna and CCNPP are not committed to conducting the ISEG function at all since ISEG was made applicable only to plants licensed subsequent to the TMI event (NUREG-0737, Section I.B.1.2, “Independent Safety Engineering Group”). As the QATR is directed toward meeting the requirements of 10 CFR Part 50, Appendix B, and these requirements do not include an ISEG,

NMPNS's discussion of the ISEG function will be relocated from their current QA program to the Safety Analysis Report, with change control governed by 10 CFR 50.59. A statement is included in QATR, Appendix A, *Review Functions of the PORC, NSRB, and ISEG*, that the ISEG function, as applicable, will be described in the facility's Safety Analysis Report. These relocations are consistent with the provisions approved by the NRC staff in the SER to Entergy Operations, Inc. (Reference b).

Constellation Generation Group, LLC will retain site-specific differences for three areas within the QATR. These differences are associated with previously approved QA programs for the licensees and are not readily reconciled:

- Calvert Cliffs will retain its alternative to the reinforced concrete, concrete block, masonry, or equal construction requirements of NQA-1-1994, Supplement 17S-1, Section 4.4.1(a) as described in QATR Section B.15 and Attachment 4 to this letter.
- The lifetime records retention requirement for the service lives of all safety-related snubbers, including the date at which the service life commences, and associated installation and maintenance records as listed in QATR, Appendix D, does not apply to NMPNS Unit 1.
- Calvert Cliffs and Ginna will retain the current commitments to Regulatory Guide 1.38, Revision 2, May 1977, *Quality Assurance Requirements for Packaging, Shipping, Receiving, Storage, and Handling of Items for Water-Cooled Nuclear Power Plants*, (ANSI N45.2.2-1972) and NMPNS will retain the commitment to ANSI/ASME NQA-2-1983 Part 2.2, *Quality Assurance Requirements for Packaging, Shipping, Receiving, Storage, and Handling of Items for Nuclear Power Plants*, as described in QATR Section B.7 and Attachment 4 to this letter.

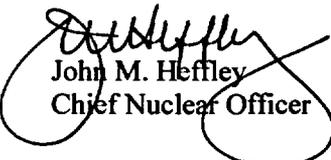
## CONCLUSION

The proposed Quality Assurance Topical Report submitted with this letter describes the quality program controls for the three Constellation Generation Group, LLC nuclear sites. In developing the QATR, plant specific elements have been replaced by a more generic approach. Based on the NRC staff's review of other consolidated licensee QA programs, we conclude that the consolidated CGG QATR satisfies the requirements of Appendix B to 10 CFR Part 50 and follows the guidance contained in Standard Review Plan 17.3.

Aligning operation of our sites via common procedures and policies will improve overall efficiency, which will result in improved operation from both a safety and production standpoint. As such it is a key element of our business plans. We are prepared to use the common QATR as soon as possible and, therefore, request approval by April 28, 2006. Once approved, we plan to implement the QATR within 30 days. Although this request is neither exigent nor an emergency, your prompt review is requested. To facilitate your review, the submittal is consistent with submittals by other companies that were recently approved by the staff.

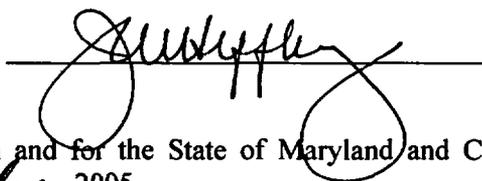
Should you have any questions regarding the information in this submittal, please contact Mr. M. D. Flaherty at (410) 897-5087 or [Mark.Flaherty@constellation.com](mailto:Mark.Flaherty@constellation.com).

Very truly yours,

  
John M. Heffley  
Chief Nuclear Officer

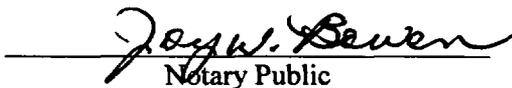
STATE OF MARYLAND :  
: TO WIT:  
COUNTY OF ANNE ARUNDEL :

I, John M. Heffley, begin duly sworn, state that I am Chief Nuclear Officer, Constellation Generation Group, LLC (CGG), and that I am duly authorized to execute and file this request on behalf of CGG. To the best of my knowledge and belief, the statements contained in this document are true and correct. To the extent that these statements are not based on my personal knowledge, they are based upon information provided by other CGG employees and/or consultants. Such information has been reviewed in accordance with company practice and I believe it to be reliable.

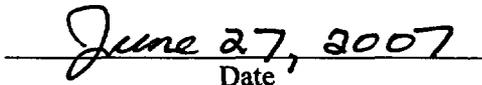


Subscribed and sworn before me, a Notary Public, in and for the State of Maryland and County of Calvert, this 5th day of December, 2005.

WITNESS my Hand and Notarial Seal:

  
Notary Public

My Commission Expires:

  
Date

JMH/EMT/jmp

**REFERENCES:**

- (a) Safety Evaluation by the Office of Nuclear Reactor Regulation, "Proposed Change to the Quality Assurance Program, Quality Assurance Program Consolidation, Exelon Generation Company, LLC and Amergen Energy Company, LLC," (ADAMS Accession Number ML023440300), dated December 24, 2002
- (b) Safety Evaluation Report, "Entergy Operations, Inc, Quality Assurance Program Consolidation," (TAC No. M97893), dated November 6, 1998
- (c) Safety Evaluation Report by the Office of Nuclear Reactor Regulation, "Change to the Quality Assurance Program, Quality Assurance Program Consolidation," for Nuclear Management Company (ADAMS Accession Number ML050700416), dated March 24, 2005
- (d) Safety Evaluation of Proposed Change to the Quality Assurance Program, "Approval of Dominion Nuclear Connecticut and Virginia Electric and Power Company Quality Assurance Program Description Quality Assurance Topical Report," (ADAMS Accession Number ML052490337), dated September 9, 2005

- Attachments:
- (1) Quality Assurance Topical Report for Constellation Generation Group, LLC
  - (2) QA Program Comparison Matrix
  - (3) Table Comparing ANSI N18.7-1976/ANS-3.2 to ASME NQA-1-1994 and the CGG QATR
  - (4) Table of CGG QATR Exceptions/Alternatives

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December 5, 2005  
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cc: Director, Project Directorate I-1, NRC  
P. D. Milano, NRC  
S. J. Collins, NRC  
T. G. Colburn, NRC

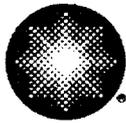
Resident Inspector, NRC (Calvert Cliffs)  
Resident Inspector, NRC (Ginna)  
Resident Inspector, NRC (NMPNS)  
R. I. McLean, Maryland DNR  
J. P. Spath, NYSERDA

**ATTACHMENT (1)**

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**QUALITY ASSURANCE TOPICAL REPORT  
FOR CONSTELLATION GENERATION GROUP, LLC**

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# Constellation Energy<sup>®</sup>

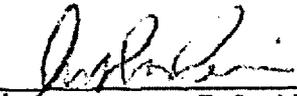
Generation Group, LLC

## QUALITY ASSURANCE TOPICAL REPORT

Revision 0

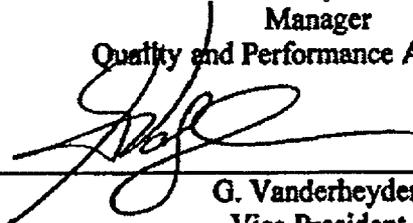
for

	<u>Docket Nos.</u>	<u>License Nos.</u>
Calvert Cliffs Nuclear Power Plant	50-317, 50-318	DPR-53, DPR-69
Nine Mile Point Nuclear Station	50-220, 50-410	DPR-63, NPF-69
R.E. Ginna Nuclear Power Plant	50-244	DPR-18

Approved  Date 11/30/05  
**E. Sopkin**

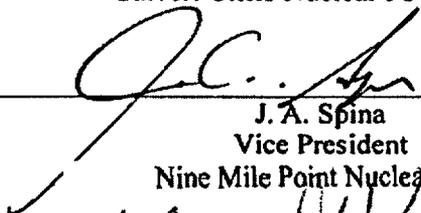
**Manager**

**Quality and Performance Assessment**

Approved  Date 11/29/05  
**G. Vanderheyden**

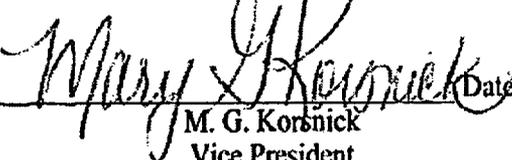
**Vice President**

**Calvert Cliffs Nuclear Power Plant**

Approved  Date 11/19/05  
**J. A. Spina**

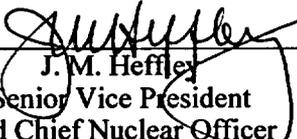
**Vice President**

**Nine Mile Point Nuclear Station**

Approved  Date 11/29/05  
**M. G. Korsnick**

**Vice President**

**R.E. Ginna Nuclear Power Plant**

Approved  Date 12/5/05  
**J. M. Heffley**

**Senior Vice President**

**and Chief Nuclear Officer**

## Constellation Generation Group, LLC

### Corporate Statement of Quality Assurance Policy

Constellation Generation Group, LLC is an advocate of quality performance in our daily activities. The quality assurance program described in procedures has been developed to assure that activities, as defined within the program scope, are being performed correctly and in conformance with applicable requirements. This program is designed to assure the safe operation of each Nuclear Station and to meet the requirements of Title 10, Code of Federal Regulations, Part 50 (10CFR50), Appendix B, "Quality Assurance Criteria for Nuclear Power Plants."

The quality assurance program applies to all activities affecting the safety related functions of those structures, systems, and components that prevent or mitigate the consequences of or monitor the course of postulated accidents, events, or phenomena that could cause undue risk to the health and safety of the public. These activities include operating, maintaining, modifying, refueling, testing, and inspecting. In addition, this program applies to 10CFR50 concerns associated with:

- maintaining the high degree of integrity of primary and secondary barriers of systems or structures containing radioactive materials.
- providing fire detection, suppression, and consequence mitigation items utilized both to protect the safety related structures, systems, and components and to assure safe operation in the event of postulated fire.
- providing assurance that instrumentation and controls which monitor accidents, or provide a secondary role in accident monitoring, function correctly and accurately.

This program also applies to the shipping of licensed radioactive material under 10CFR71, except for design and fabrication of shipping casks. The quality assurance program has also established controls to ensure that the construction, operational, and decommissioning phases for the Independent Spent Fuel Storage Installations (ISFSI) are conducted in compliance with 10CFR72.

The Chief Nuclear Officer has overall responsibility for implementing the quality assurance program. The Manager, Quality and Performance Assessment is responsible for coordinating the formulation of the quality assurance program and for assuring the program's implementation. Nuclear organization personnel are responsible for implementing the quality assurance program in accordance with the requirements of their procedures.



Michael J. Wallace  
President, Constellation Generation Group, LLC

Date: 12/5/2005

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## A. MANAGEMENT

### A.1 METHODOLOGY

The President of Constellation Generation Group, LLC (CGG), establishes the CGG quality assurance policy. This policy is set forth in the CGG Corporate Statement of Quality Assurance Policy and is binding on all organizations and individuals performing CGG quality affecting activities. The policy is implemented under the overall direction of the Senior Vice President and Chief Nuclear Officer, CGG.

The quality assurance program comprises those planned and systematic actions necessary to provide confidence that structures, systems, and components will perform their intended safety functions. The quality assurance program consists of the NRC approved regulatory document that describes the quality assurance program elements (the QATR) along with the associated corporate, fleet, and site implementing documents. Appropriate sections in the QATR contain a "Quality Standard Reference" which describes applicable commitments to related NQA-1-1994 sections. The Quality Standard referenced in each section will be reviewed in addition to the QATR when determining station quality requirements. Nuclear directives establish high-level responsibilities and authority for carrying out important functions. Fleet procedures establish common practices for certain activities such that the activity is controlled and carried out in a manner that meets quality assurance program requirements. Site and department procedures establish detailed implementation requirements and methods, and may be used to implement nuclear directives and fleet procedures or be unique to particular functions or work activities. In addition, to provide a clear understanding of CGG operating philosophy, CGG establishes rules of practice pertaining to personnel conduct and control, including consideration of job related factors which can influence the effectiveness of operating and maintenance personnel, including such factors as number of hours at duty station, availability on-call of professional and supervisory personnel, method of conducting operations, and preparing and retaining plant documents. Such rules are contained within appropriate implementing documents.

The quality assurance program applies to activities affecting the performance of safety-related structures, systems and components, including, but not limited to, design; construction; procurement; fabrication; installation; modification; maintenance; repair; refueling; operation; training, inspection; tests; and decommissioning. A list or other means of identification, of safety-related Systems, Structures, and Components (SSC) under the control of the quality assurance program is established and maintained for each operating plant. The technical aspects of the items are considered when determining program applicability, including, as applicable, the item's design safety function, the ASME Code and the other references cited in section A.7.3 of this QATR. The quality assurance program is also applied to certain activities where regulations other than 10CFR50 establish quality assurance program requirements for activities within their scope. Thus, this QATR is applied to the "important to safety" activities of radioactive waste shipping and independent spent fuel storage, as defined in those NRC regulations, as allowed by 10CFR71.101(f) and 10CFR72.140(d).

It is CGG's policy to assure a high degree of availability and reliability of its nuclear plants while ensuring the health and safety of the public and its workers. To this end, selected elements of the quality assurance program are also applied to certain equipment and activities that support safe and reliable plant operations, or where other non-CFR NRC guidance establishes program requirements. These include, but may not be limited to, emergency preparedness, security, radiation protection and fire protection. Implementing documents establish program element applicability.

Activities affecting quality are prescribed by and performed according to documents (such as instructions, procedures or drawings) of a type appropriate to the circumstances and which, where applicable, include quantitative or qualitative acceptance criteria. Such documents are prepared and controlled according to section B.14. In addition, means are provided for dissemination to plant staff of instructions of both general and continuing applicability (e.g., dealing with job turnover and relief, designation of confines of the control room, limitations on access to certain areas), as well as those of short-term applicability (e.g., dealing with short-term operating conditions, publications, personnel actions). Provisions are included for review, updating, and cancellation of such instructions.

In establishing, implementing and maintaining the QATR, CGG commits to compliance with ASME NQA-1-1994, Basic Requirement 2. QATR revisions are reviewed by site and corporate management, and approved by the Chief Nuclear Officer. Changes to this QATR will be governed by and made in compliance with 10CFR50.54(a).

In establishing procedural controls, CGG commits to compliance with NQA-1, 1994, Basic Requirement 5. In addition, as stated in position C.1 of Regulatory Guide 1.33, Revision 2, CGG commits to use Appendix A of Regulatory Guide 1.33 as guidance for establishing the types of procedures that are necessary to control and support plant operation. Requirements specific to procedures are also provided in Appendix B of this QATR.

## A.2 ORGANIZATION

This section describes the CGG organizational structure, functional responsibilities, and levels of authority and interfaces for establishing, executing, and verifying quality assurance program implementation. The organizational structure includes corporate functions and onsite functions at each plant. Corporate management is responsible for overall management of the Company's nuclear facilities through all the phases from siting to decommissioning. Support groups provide management, technical, and oversight support for activities such as design, construction, operation, modification, and decommissioning and report to corporate management. These support groups may be located at corporate offices or at a nuclear facility site. The onsite operations groups are responsible for overall operational activities of assigned nuclear facilities in accordance with the facility license. The operations groups are typically assigned responsibility for one or more nuclear power station units and any associated Independent Spent Fuel Storage Installations at a particular site. Decisions affecting safety are made at the level appropriate for its nature and effect and with any necessary technical advice for review. Implementing documents assign more specific responsibilities and duties, and define the organizational interfaces involved in conducting activities and duties within the scope of this QATR. As the amount of certain activities changes, such as construction or decommissioning, the organizational structure may change and will be reflected in a change to these descriptions.

### A.2.1 CORPORATE ORGANIZATION

The following positions have the described corporate functional responsibilities (See Appendix E):

#### A.2.1.1 President, CGG

This position is responsible for overall corporate policy and provides executive direction and guidance for the corporation as well as promulgates corporate policy through the Company's senior management staff. Overall responsibility for the implementation of the quality assurance program is delegated to the Senior Vice President and Chief Nuclear Officer, CGG.

#### A.2.1.2 Senior Vice President and Chief Nuclear Officer, CGG (CNO)

This position reports to the President, CGG and has overall responsibility for the safe and reliable operation of the Company's nuclear stations including management oversight and support of the day-to-day operations of the stations. This is the senior executive responsible for setting and implementing policies, objectives, expectations, and priorities to ensure activities are performed in accordance with the quality assurance program and other requirements. The CNO oversees activities of the Nuclear Safety Review Board (NSRB).

### A.2.1.3 Operations Support

An executive management position for operations support reports to the CNO and provides direction to the nuclear security, emergency preparedness, training, and fleet procedures departments. Responsibilities for nuclear security include facility physical security, nuclear access programs, and fitness for duty programs. Emergency preparedness responsibilities include development and maintenance of the company radiological emergency plans and coordination with off-site radiological emergency response groups for the nuclear facilities. Training ensures qualified personnel operate and support the nuclear facilities and administers the fleet corrective action, self-assessment, and industry operating experience programs. The fleet procedures department ensures that fleet procedures are prepared in accordance with applicable regulatory requirements, industry quality standards, and this QATR. Additionally, corporate oversight and support is provided in the areas of operations, maintenance, refueling services, radiation protection, chemistry, and work management. Some of these responsibilities may be assigned to Site Vice President(s) at the discretion of the CNO.

### A.2.1.4 Technical Services

An executive management position for technical services reports to the CNO and provides direction to corporate engineering, licensing, nuclear fuel services, and probabilistic risk assessment (PRA) departments. Additionally, corporate oversight and support is provided for site engineering. This position is responsible for the engineering functions supporting design and construction activities and long-term nuclear operations, providing for regulatory compliance and licensing support through NRC communications, and activities related to safety and management of nuclear fuel. Some of these responsibilities may be assigned to the Site Vice President(s) at the discretion of the CNO.

### A.2.1.5 Quality and Performance Assessment (Q&PA)

A senior management position reporting to the CNO is responsible for the verification of effective Company and Supplier quality assurance program development, documentation, and implementation. This position is independent of cost and scheduling concerns associated with construction, operations, maintenance, modification, and decommissioning activities for performing quality assurance program verification. Where implementation of any or all of these functions is delegated to Suppliers, procedures require the establishment of interface documents including defining lines of communication and authorities as appropriate for the delegated functions. However, this senior management position retains responsibility for the scope and effective implementation of the quality assurance program for those functions. This management position has the necessary authority and responsibility for verifying quality achievement; identifying quality problems, recommending solutions and verifying implementation of the solutions; and escalating quality problems to higher management levels. This position has the authority to suspend unsatisfactory work and control further processing or installation of non-conforming materials. The authority to stop work delegated to Q&PA personnel is delineated in procedures.

Q&PA is responsible for the evaluation of Suppliers' quality programs through a system of external audits, evaluations, and reviews of Supplier performance in accordance with quality assurance requirements. A list of approved Suppliers is maintained. Q&PA is responsible for assuring Company compliance with this QATR through administration of a comprehensive and systematic internal audit program. Q&PA is also responsible for the Employee Concerns Program, and developing and maintaining an appropriate quality verification inspection program where not provided for in the facility construction or operating organization functions.

### A.2.1.6 Project Management

A senior management position reporting to the CNO is responsible for the implementation of large projects for the nuclear facilities. Implementation includes development of the detailed scope, estimate, schedule, cost, design procurement, construction, testing, and closeout of each project. Project management also oversees siting and construction activities. Focus is on defined projects separate from

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ongoing routine engineering projects. Some of these responsibilities may be assigned to the Site Vice President(s) at the discretion of the CNO.

#### A.2.1.7 Supply Chain

Supply Chain is responsible for material management, purchasing, procurement engineering, and receipt inspection. This position has the authority to control further processing or installation of nonconforming materials. This authority is delegated to inspection personnel as delineated in procedures.

#### A.2.1.8 Information Technology

Information Technology is responsible for network infrastructure maintenance and upgrade, network and application security, network operations; automation strategy, application development and support, automation training; development and maintenance of the software control program; and oversight, maintenance, and repair of the Emergency Offsite Facility Computer System.

### A.2.2 SITE ORGANIZATION

The overall structure of the organization described herein is applied for all facilities, however, there may be slight variations in responsibilities between facilities, but the overall reporting relationships remain. Depending on the scope of the activities, one or more individuals may be assigned the described management responsibilities. The on-site operating organization includes one or more individuals knowledgeable in the following fields: nuclear power plant operation; nuclear power plant mechanical, electrical and electronic systems; nuclear engineering; chemistry and radiochemistry; radiation protection; and quality assurance. Site procedures provide detailed organizational descriptions. The site organization is depicted in Appendix E.

#### A.2.2.1 Site Vice President (SVP)

This position reports to the CNO and is responsible for overall plant nuclear safety and implementation of the Company's quality assurance program. This position is responsible for the station's compliance with its NRC Operating License, governmental regulations, and ASME Code requirements. Areas of responsibility also include site engineering and training. This position provides day-to-day direction and management oversight of activities associated with the safe and reliable operations of a nuclear station.

#### A.2.2.2 Plant General Manager

This position reports to the SVP and is responsible for plant operations and maintenance. This position assures the safe, reliable, and efficient operation of the plant within the constraints of applicable regulatory requirements, Operating License, and the quality assurance program. The Plant General Manager, in carrying out the responsibility for overall safety of plant operations, is responsible for timely referral of appropriate plant matters to management and independent reviewers. Areas of responsibility also include chemistry activities, health physics/radiological protection, operations and support, work management, records management, maintenance and production planning, and related procedures and programs. The Plant Operating Review Committee (PORC) reports to the Plant General Manager.

#### A.2.2.3 Training

A site management position reports to the SVP and functionally to a corporate management position (offsite), and is responsible for the training of personnel who operate or support the nuclear facilities. Training responsibilities include determining the need for training based on information provided by the various groups, developing performance-based training programs, implementing training programs to support employee and facility needs, and evaluating training programs. Certain functional groups may be assigned responsibility for the development and conduct of their own training programs provided these groups are not required to have a systems approach to training under 10 CFR 50.120. This position is

also responsible for administration of the corrective action, self-assessment and industry operating experience programs.

#### A.2.2.4 Engineering

A site management position reports to the SVP and functionally to a Corporate Vice President (offsite), and is responsible for day-to-day engineering support activities including design engineering, engineering programs, equipment reliability, and system engineering.

#### A.2.2.5 Q&PA

A site management position reports to the corporate management position (offsite) responsible for Q&PA and functionally to the SVP, and is responsible for site Q&PA activities. Significant safety or quality issues requiring escalated action are directed through this position to corporate Q&PA management, as necessary. Responsibilities include conducting independent assessments of line and support activities; monitoring and assessing day-to-day station activities; stop work authority at the site; periodic reporting on the status and adequacy of the quality program; providing quality verification and inspections; and the Employee Concerns Program.

In establishing its organizational structure, CGG commits to compliance with NQA-1, 1994, Basic Requirement 1 and Supplement 1S-1.

### A.3 RESPONSIBILITY

All employees of CGG involved in the operation of the fleet nuclear power plants and associated support activities have full personal and corporate responsibility to assure that the plant is operated, maintained, tested, inspected, and modified in a safe and reliable manner. This responsibility includes assuring that an effective quality assurance program is implemented. Although authority for development and execution of specified parts of the program may be delegated to others (e.g. suppliers), CGG retains overall responsibility.

The QA program status, scope, adequacy and compliance with 10CFR50 Appendix B are regularly reviewed by CGG management through reports, meetings, review of audit results, and documented assessments performed by management teams. The NSRB reviews the status and adequacy of the QA program at each site at least once every two years to assure that it is meaningful and effectively complies with corporate policy and 10CFR50, Appendix B. This review consists of an audit, or a review equivalent to an audit, performed by company personnel or outside organizations.

CGG is responsible for ensuring that the applicable portions of the QA program are properly documented, approved, and implemented (people are trained and resources are available) before an activity with the scope of the QA program is undertaken by CGG or by others. Individual managers ensure that personnel working under their cognizance are provided the necessary training and resources to accomplish their assigned tasks. Managers and supervisors are responsible for timely and continuing monitoring of performance to verify that day-to-day activities are conducted safely and in accordance with applicable requirements. The QA program is implemented through procedures prepared and maintained by the responsible organization and approved for use by their designated manager. Quality affecting activities are performed in accordance with these procedures, utilizing sufficiently trained personnel and necessary resources to accomplish the work.

Adherence to procedures is vital to the safe and reliable operation of CGG's Nuclear Power Plants. Personnel are responsible for adhering to established procedures, interpreting them conservatively in case of doubt, and recommending changes when necessary. Procedures with the potential to affect nuclear or personnel safety shall be strictly adhered to. When an activity controlled by such procedures cannot be accomplished as described or accomplishment of such activity would result in an undesirable situation,

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the work shall be stopped and the plant placed in a safe condition. Work shall not resume until the procedure is changed to reflect correct work practices.

In addition, operating personnel responsibilities include:

1. The reactor operator's authority and responsibility for shutting down the reactor when it is determined that the safety of the reactor is in jeopardy or when operating parameters exceed any of the reactor protection system set-points and automatic shutdown does not occur.
2. The responsibility to determine the circumstances, analyze the cause, and determine that operations can proceed safely before the reactor is returned to power after a trip or an unexplained or unscheduled power reduction.
3. The senior reactor operator's responsibility to be present at the plant and to provide direction for returning the reactor to power following a trip or an unscheduled or unexplained power reduction.
4. The responsibility to believe and respond conservatively to instrument indications unless they are proved to be incorrect.
5. The responsibility to adhere to the plant's Technical Specifications.
6. The responsibility to review routine operating data to assure safe operation.
7. The responsibility to take action to minimize personnel injury or damage to the facility and to protect the health and safety of the public in the event of an emergency not covered by approved procedures.

In establishing quality assurance program responsibilities, CGG commits to compliance with NQA-1-1994, Basic Requirement 1 and Supplement 1S-1.

#### A.4 AUTHORITY

Persons or organizations who are delegated responsibility for planning, establishing, or implementing any part of the CGG quality assurance program also have the authority to carry out those responsibilities.

Nuclear operations and support organization personnel are empowered to take stop work action on their own activities if they determine that continuing the activity would preclude identifying and correcting a condition adverse to quality or lead to an unsafe condition. Designated independent inspection and audit personnel have the authority to stop work within nuclear operations and support organizations, and at supplier locations. The Plant General Managers have stop work authority for all activities performed in operating their respective stations.

In establishing quality assurance program authorities, CGG commits to compliance with NQA-1-1994, Basic Requirement 1 and Supplement 1S-1.

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**A.5 PERSONNEL TRAINING AND QUALIFICATION**

Personnel assigned to implement elements of the QA program must be capable of performing their assigned tasks. To this end, CGG establishes and maintains formal indoctrination and training programs for personnel performing, verifying or managing activities within the scope of the QA program to assure that suitable proficiency is achieved and maintained. Generating site and support staff minimum qualification requirements are as delineated in each site's Technical Specifications. Other qualification requirements may be established but will not reduce those required by Technical Specifications. Sufficient managerial depth is provided to cover absences of incumbents. When required by code, regulation, or standard, specific qualification and selection of personnel is conducted in accordance with those requirements as established in the applicable CGG procedures. Indoctrination includes the administrative and technical objectives, requirements of the applicable codes and standards, and the QA program elements to be employed. Training for positions identified in 10CFR50.120 is accomplished according to programs accredited by the National Nuclear Accrediting Board of the National Academy of Nuclear Training that implement a systematic approach to training. Records of personnel training and qualification are maintained.

In establishing qualification and training programs, CGG commits to compliance with NQA-1-1994 Basic Requirement 2 and Supplements 2S-1, 2S-2, 2S-3 and 2S-4, with the following alternatives and exceptions:

1. For Supplement 2S-1: Inspections, examinations or tests may be performed by individuals in the same organization as that which performed the work, provided that (a) the qualifications of the inspector for an activity are equal to or better than the minimum qualifications for persons performing the activity, (b) the work is within the skills of personnel and/or is addressed by procedures, and (c) if work involves breaching a pressure-retaining item, the quality of the work can be demonstrated through a functional test. When a, b and c are not met, inspections, examinations or tests are carried out by individuals certified in accordance with Supplement 2S-1. Individuals performing visual inspections required by the ASME Boiler and Pressure Vessel Code are qualified and certified according to Code requirements.
2. In lieu of Nonmandatory Appendix 2A-1, CGG need not establish levels of qualification/certification for inspection and test personnel. Instead, CGG may establish initial qualification requirements and determines individual qualification through evaluation of education, training and experience, and through demonstration of capability in performing the type of inspections expected on the job.
3. In lieu of Supplement 2S-2, CGG will follow the applicable standard cited in the latest version(s) of Section XI of the ASME Boiler and Pressure Vessel Code approved by the NRC for use at CGG sites for qualification of nondestructive examination personnel.
4. For Supplement 2S-3: The requirement that prospective Lead Auditors have participated in a minimum of five (5) audits in the previous three (3) years is replaced by the following, "The prospective lead auditor shall demonstrate his/her ability to properly implement the independent assessment (audit) process, as implemented by CGG according to section C.2 of this QATR, to effectively lead an assessment team, and to effectively organize and report results, including participation in at least one independent assessment or audit within the year preceding the date of qualification."
5. A grace period of 90 days may be applied to the performance of annual evaluations of inspection, examination and testing personnel qualifications defined in Supplement 2S-1, and annual lead auditor recertifications described in Supplement 2S-3. The grace period does not allow the "clock" for a particular activity to be reset forward. However, the "clock" for an activity is reset backwards by performing the activity early.

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**A.6 CORRECTIVE ACTION**

CGG management, at all levels, fosters a non-punitive (“no-fault”) attitude toward the identification of conditions adverse to quality. This includes failures, malfunctions, deficiencies, deviations, defective material and equipment, abnormal occurrences, nonconformances, and out-of-control processes, including the failure to follow procedures.

CGG implements a corrective action program to promptly identify, control, document, classify, and correct conditions adverse to quality. In addition, for significant conditions adverse to quality, the program provides for cause evaluation and corrective actions to prevent recurrence. Provisions are also made to ensure that corrective actions for significant conditions adverse to quality are completed as intended. Results of evaluations of conditions adverse to quality are analyzed to identify trends. Significant conditions adverse to quality and significant adverse trends are documented and reported to responsible management.

Prior to installation, nonconforming items, services or activities are reviewed and accepted, rejected, repaired, or reworked, and are identified and controlled to prevent their inadvertent test, installation or use.

In establishing requirements for corrective action, CGG commits to compliance with NQA-1-1994, Basic Requirements 15 and 16, and Supplement 15S-1.

The Employee Concerns Program provides CGG and contractor employees an opportunity to communicate their quality concerns regarding operation, maintenance or modification while keeping their identity confidential, if they desire, and to receive feedback regarding the results of investigations with respect to their concerns. Quality concerns determined to be valid are acted upon by the responsible organization, and the actions are verified prior to closeout.

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## A.7 REGULATORY COMMITMENTS

### A.7.1

Through the QATR, CGG commits to compliance with the following:

1. 10CFR50, Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants"
2. 10CFR Part 71, Subpart H, "Quality Assurance for Packaging and Transportation of Radioactive Material"
3. 10CFR Part 72, Subpart G, "Quality Assurance for Licensing Requirements for the Independent Storage of Spent Nuclear Fuel and High-Level Radioactive Waste,"
4. 10CFR Part 21, "Reporting of Defects and Non-Compliance"
5. General Design Criterion 1, of Appendix A to 10 CFR Part 50
6. 10CFR50.55a, "Codes and standards"
7. 10CFR50.59, "Changes, Tests and Experiments"
8. 10CFR55, "Operators' Licenses"

### A.7.2

When applicable, for Class 1, 2, and 3 items covered by Section III of the ASME Boiler and Pressure Vessel Code, the code Quality Assurance requirements are supplemented by the guidance of applicable regulatory guides and this QATR.

### A.7.3

Through this QATR, CGG commits to compliance with the regulatory guidance and industry standards governing quality assurance as described below along with any exceptions or alternatives described within this QATR. Commitment to a particular Regulatory Guide does not constitute commitment to Regulatory Guides or other standards that may be referenced therein, unless otherwise noted.

1. Regulatory Guide 1.8, Revision (site-specific), "Qualification and Training of Personnel for Nuclear Power Plants" – CGG commitments regarding qualification and training of personnel are described in Section A.5 of this QATR, which states that staff qualification requirements are as delineated in each site's Technical Specifications, and that training for positions identified in 10CFR50.120 is accomplished according to programs accredited by the National Nuclear Accrediting Board of the National Academy for Nuclear Training.
2. Regulatory Guide 1.16, Revision (site-specific), "Reporting of Operating Information" – The commitment to this Regulatory Guide is site-specific as described in the approved Safety Analysis Report (SAR) or License for each nuclear facility. Where items do not conform to the requirements of the Regulatory Guide, they are addressed in the applicable facility's SAR.
3. Safety/Regulatory Guide 1.26, Revision (site-specific), "Quality Group Classifications and Standards for Water-, Steam-, and Radioactive Waste-Containing Components of Nuclear Power Plants" – Commitment to Safety/Regulatory Guide 1.26 is site-specific, as required by the approved SAR/License at each nuclear facility. Sites may use this guidance to assist in establishing the lists of equipment to which this QA program applies, or for other purposes.
4. Regulatory Guide 1.28, Revision 3, August 1985, "Quality Assurance Program Requirements (Design and Construction)" (ASME NQA-1, 1983a) – CGG will implement the requirements and guidance of the standard and Regulatory Guide during the design and construction phases of the facilities subject to the following:
  - a. Regulatory Position C endorses the basic and supplementary requirements of ANSI/ASME NQA-1-1983 and the ANSI/ASME NQA-1a-1983 Addenda. In place of the specific edition and addenda of NQA-1 addressed in the Regulatory Guide, CGG

- commits to implement the requirements of NQA-1-1994 Part I. CGG's commitment to these requirements and any exceptions/alternatives to these requirements are addressed in this QATR.
- b. CGG does not commit to compliance with Regulatory Position C.1 of this Regulatory Guide; instead of establishing three levels of qualification provided in Nonmandatory Appendix 2A-1, CGG may establish initial qualification requirements and determine individual qualification through evaluation of education, training and experience, and through demonstration of capability in performing the type of inspections expected on the job.
  - c. CGG uses the list of records in position C.2 (Table 1) to establish the types of records that will be created and retained in support of plant operation. Table 1 addresses design, construction and initial start-up records and will be applied to operating and decommissioning phase records that are similar in nature to the construction records. Additional operations phase records and their retention periods are identified in Appendix D to this QATR.
  - d. The guidance in Regulatory Position C.3.2 regarding external audits will also be implemented during the operational phase. CGG complies with Regulatory Position C.3.2 with the exception that for Regulatory Position C.3.2.2, CGG may review the information described therein as it becomes available through its ongoing receipt inspection, operating experience, and supplier evaluation programs, in lieu of performing a specific evaluation on an annual basis. The results of the reviews are promptly considered for effect on a supplier's continued qualification and adjustments made as necessary (including corrective actions, adjustments of supplier audit plans, and input to third party auditing entities, as warranted). Additionally, results are reviewed periodically to determine if, as a whole, they constitute a significant condition adverse to quality requiring additional action. A grace period of 90 days may be applied to the performance of triennial supplier audits described in Regulatory Position 3.2.1. The grace period does not allow the "clock" for a particular activity to be reset forward. However, the "clock" for an activity is reset backwards by performing the activity early.
5. Safety/Regulatory Guide 1.29, Revision (site-specific) "Seismic Design Classification" – CGG plants may have been designed, constructed and licensed based on criteria available prior to this Regulatory Guide being issued. The specific design criteria and seismic designations are reflected in each plant's SAR, and in other docketed analysis. Thus, the commitment to Safety/Regulatory Guide 1.29 is site-specific, as required by the approved SAR/License at each CGG site. Sites may use this guidance to assist in establishing the lists of equipment to which this QA program applies, or for other purposes.
6. Regulatory Guide 1.30, August 1972, "Quality Assurance Requirements for the Installation, Inspection and Testing of Instrumentation and Electric Equipment," (ANSI N45.2.4-1972/IEEE 336-1971):
- a. CGG commits to ANSI N45.2.4-1972/IEEE 336-1971 in its commitment to Position C of Regulatory Guide 1.30.
  - b. As noted in Regulatory Position C.1, ANSI N45.2.4-1972 is being used in conjunction with NQA-1-1994, Part I, which replaced ANSI N45.2.
  - c. As noted in Regulatory Position C.2, other industry standards may be referenced. The commitment in this QATR to ANSI N45.2.4-1972 includes commitment to those standards to the extent necessary to implement ANSI N45.2.4-1972 requirements. If NRC guidance applies to those referenced standards, it is followed.
  - d. Consistent with Regulatory Position C.3, the requirements of the endorsed standard are also considered applicable during the operation phase of the nuclear power plant.
  - e. In lieu of the requirements of the last paragraph of ANSI N45.2.4-1972 Section 6.2.1, the calibration program at CGG does not use calibration stickers on installed plant

instrumentation that contain the date of calibration and identity of person that performed the calibration. Calibrations of instruments are scheduled and tracked by a computer database.

7. Regulatory Guide 1.33, Revision 2, February 1978, "Quality Assurance Program Requirements (Operation)" (ANSI N18.7-1976/ANS-3.2):
  - a. NQA-1-1994 Part I contains quality assurance requirements equivalent to those of ANSI N18.7-1976/ANS-3.2, and CGG has included in this QATR the remaining "administrative controls" elements from ANSI N18.7-1976/ANS-3.2. Therefore, CGG does not commit to compliance with the requirements of ANSI N-18.7-1976/ANS-3.2.
  - b. As recommended by Regulatory Position C.1, CGG uses Appendix A of Regulatory Guide 1.33, Revision 2, as guidance in establishing the types of procedures required for plant operation and support.
  - c. CGG's commitment to the applicable Regulatory Guides and associated standards listed in Regulatory Position C.2 is addressed within this QATR. A number of these Regulatory Guides and standards have been incorporated into NQA-1-1994 Part I.
  - d. CGG complies with Regulatory Position C.3, as described in Appendix A of this QATR.
  - e. In lieu of the six and twelve month audit frequencies specified in Regulatory Position C.4, CGG audits selected aspects of operational phase activities at a frequency commensurate with their safety significance in such a manner as to assure an audit of all safety-related functions is completed within a period of two years. (except as otherwise required in regulations) CGG's audit program includes the elements listed in Regulatory Position C.4. A 90-day grace period may be applied to the 24-month frequency for performing internal audits. The grace period does not allow the "clock" for a particular activity to be reset forward. However, the "clock" for an activity is reset backwards by performing the activity early.
  - f. In lieu of compliance with Regulatory Position C.5, CGG has established appropriate equivalent requirements within this QATR.
8. Regulatory Guide 1.36, Revision (site-specific), "Nonmetallic Thermal Insulation for Austenitic Stainless Steel" – CGG plants may have been designed, constructed and licensed based on criteria available prior to this Regulatory Guide being issued. Regulatory Guide 1.36 may be used for plant modifications on a case-by-case basis, but this QATR makes no generic commitment thereto.
9. Regulatory Guide 1.37, Revision (site-specific), "Quality Assurance Requirements for Cleaning of Fluid Systems and Associated Components of Water-Cooled Nuclear Power Plants," (ANSI N45.2.1-1973) – The commitment to this Regulatory Guide is site-specific as described in the approved SAR or License for each nuclear facility. Where items do not conform to the requirements of the Regulatory Guide, they are addressed in the applicable facility's SAR.
10. Regulatory Guide 1.38, Revision (site-specific), "Quality Assurance Requirements for Packaging, Shipping, Receiving, Storage, and Handling of Items for Water-Cooled Nuclear Power Plants," (ANSI N45.2.2-1972) – The commitment to this Regulatory Guide is site-specific as described in the approved SAR or License for each nuclear facility. Where items do not conform to the requirements of the Regulatory Guide, they are addressed in the applicable facility's SAR.

This alternative applies to Nine Mile Point Nuclear Station (NMPNS). NMPNS commits to ANSI/ASME NQA-2-1983 Part 2.2, "Quality Assurance Requirements for Packaging, Shipping, Receiving, Storage, and Handling of Items for Nuclear Power Plants," for nuclear safety-related activities pertaining directly to permanent plant modifications only. NQA-2-1983 Section 7.1 refers to NQA-2-1983 Part 2.15 for requirements related to handling of items. The scope of Part 2.15 includes hoisting, rigging and transporting of items for nuclear power plants. This scope exceeds the scope of the NRC's original endorsement of ANSI N45.2.2 in Regulatory Guide 1.38, and establishes requirements for which there is no NRC regulatory position. In lieu of compliance with Part 2.15, NMPNS is committed to the requirements of applicable heavy load

reports for Nine Mile Point Units 1 and 2 that have been approved by the NRC. Unit 2's report is a part of the SAR (Appendix 9C). Unit 1's is a separate report.

11. Regulatory Guide 1.39, Revision 2, September 1977, "Housekeeping Requirements for Water-Cooled Nuclear Power Plants," (ANSI N45.2.3-1973) – CGG substitutes NQA-1-1994, Subpart 2.3 for N45.2.3 in its commitment to Regulatory Guide 1.39. As noted in Regulatory Position C.1, other industry standards may be referenced; the commitment in this QATR to NQA-1, Subpart 2.3 includes commitment to those standards to the extent necessary to implement Subpart 2.3 requirements. If NRC guidance applies to those referenced standards, it is followed. Regulatory Position C.2 indicates that the provisions of section 3.2.3 of N45.2.3 are not part of the Regulatory endorsement. As NQA-1, Subpart 2.3, section 3.2.3 has the same wording as N45.2.3; the Regulatory Position is applicable and will be followed in CGG's implementation of Subpart 2.3. Regulatory Position C.3 indicates that the endorsed standard is "applicable for housekeeping activities during the operations phase that are comparable to those occurring during construction." This is addressed in section B.7 of this QATR, which also establishes any necessary exceptions or alternatives to the provisions of Subpart 2.3.
12. Regulatory Guide 1.54, Revision (site-specific), "Quality Assurance for Protective Coatings Applied to Nuclear Power Plants" (N101.4-1972) - The commitment to this Regulatory Guide is site-specific as described in the approved SAR or License for each nuclear facility. Where items do not conform to the requirements of the Regulatory Guide, they are addressed in the applicable facility's SAR.
13. Regulatory Guide 1.68, Revision (site-specific), "Preoperational and Initial Startup Test Programs for Water-Cooled Power Reactors," - The commitment to this Regulatory Guide is site-specific as described in the approved SAR or License for each nuclear facility. Where items do not conform to the requirements of the Regulatory Guide, they are addressed in the applicable facility's SAR.
14. Regulatory Guide 1.94, Revision (site-specific), "Quality Assurance Requirements for Installation, Inspection, and Testing of Structural Concrete and Structural Steel During the Construction Phase of Nuclear Power Plants," (ANSI N45.2.5-1974) – CGG plants may have been designed, constructed and licensed based on criteria available prior to this Regulatory Guide being issued. The specific installation, inspection, and testing criteria are reflected in each plant's SAR, and in other docketed analysis. Thus, the commitment to Regulatory Guide 1.94 is site-specific, as required by the approved SAR/License at each CGG site. Sites may use this guidance to assist in establishing the equipment to which this QA program applies, or for other purposes.
15. Regulatory Guide 1.116, Revision 0-R, May 1977, "Quality Assurance Requirements for Installation, Inspection, and Testing of Mechanical Equipment and Systems," (ANSI N45.2.8-1975) – CGG substitutes NQA-1-1994, Subpart 2.8 for N45.2.8 in its commitment to Regulatory Guide 1.116. As noted in Regulatory Position C.1, other industry standards may be referenced; the commitment in this QATR to NQA-1, Subpart 2.8 includes commitment to those standards to the extent necessary to implement Subpart 2.8 requirements. If NRC guidance applies to those referenced standards, it is followed. Regulatory Position C.3 recommends using Section 5 of N45.2.8 in conjunction with Regulatory Guide 1.68 for pre-operational, cold functional, and hot functional testing. While Section 5 of NQA-1, Subpart 2.8 provides the same requirements, it is anticipated that CGG plants, since they are already beyond these tests, will not need to implement Regulatory Guide 1.68. If testing in accordance with Regulatory Guide 1.68 becomes necessary, CGG will comply with the guidance of the Regulatory Guide 1.116 position. Regulatory Position C.2 indicates that the endorsed standard should be "followed for those applicable operations phase activities that are comparable to activities occurring during the construction phase." This is addressed in section B.12 of this QATR.
16. Regulatory Guide 1.143, Revision (site-specific), "Design Guidance for Radioactive Waste Management Systems, Structures and Components Installed in Light-water-Cooled Nuclear Power Plants" Commitment to Regulatory Guide 1.143 is site-specific, as required by the approved SAR at each CGG site. Sites may use this guidance to assist in establishing the lists of equipment to which this QA program applies, or for other purposes.

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17. Regulatory Guide 1.152, Revision 0, November 1985, "Criteria for Programmable Digital Computer System Software in Safety-Related Systems of Nuclear Power Plants" - CGG does not make a commitment to Regulatory Guide 1.152. CGG commits to Generic Letter 95-02, and its endorsement of NUMARC/EPRI Report TR-102348, "Guidelines on Licensing Digital Upgrades."
  18. Generic Letter 89-02/EPRI-NP-5652 (June 1988) – CGG commits to compliance with the endorsed industry guidance regarding selection and qualification of commercial grade suppliers and dedication of commercial grade items for use in safety related applications.
  19. Branch Technical Position CMEB 9.5-1, Revision 2, July 1981 (Positions C.2 and C.4) – None of the current CGG plants are committed to CMEB 9.5-1. CGG plants are committed to the guidance in Appendix A to Branch Technical Position APCSB 9.5-1, "Guidelines for Fire Protection for Nuclear Power Plants Docketed Prior to July 1, 1976." However, application of the requirements is site-specific as described in the applicable facility SAR, Fire Protection Program, and License documents.
  20. Regulatory Guide 4.15, Revision 1, February 1979, "Quality Assurance for Radiological Monitoring Programs (Normal Operations) – Effluent Streams and the Environment" – CGG commits to compliance with the Regulatory Positions of Section C with the following alternatives/exceptions:
    - a. In lieu of plotting background parameters and setting predetermined control values for gamma spectroscopy instrumentation as described in Regulatory Position C.6.2, background results may be logged and evaluated to ensure the background does not bias reported results.
    - b. The NRC's independent sampling and analysis program described in Regulatory Position C.6.3.2 may not be performed.
    - c. In lieu of performing source check calibrations at least once per 18 months as described in Regulatory Position C.7, CGG may perform these calibrations at least once per refueling interval.
  21. Regulatory Guide 7.10, Revision 1, June 1986, "Establishing Quality Assurance Programs for Packaging Used in the Transport of Radioactive Material" – CGG commits to implement the quality assurance guidance for activities related to the packaging and transport of radioactive material that are under its control. Quality Assurance for the design, fabrication and licensing of shipping containers is the responsibility of the container certificate holders.
  22. Regulatory Issue Summary 2000-18, October 2000, "Guidance on Managing Quality Assurance Records in Electronic Media" – Should CGG choose electronic media storage as a means of maintaining required records, CGG will comply with the guidance of this Regulatory Issue Summary.
  23. Generic Letter 82-21, "Technical Specifications for Fire Protection Audits," In lieu of the 12-month, 24-month and 36-month fire protection and loss prevention audits, CGG will combine the scope of the three audits into one by performing a biennial audit of the facility fire protection program and implementing procedures. The biennial requirement includes a fire protection equipment and program implementation inspection and audit utilizing either a qualified offsite licensed fire protection engineer or an outside qualified fire protection consultant.
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## B. PERFORMANCE VERIFICATION

### B.1 METHODOLOGY

Personnel who work directly or indirectly for CGG are responsible for the achievement of acceptable quality in the work covered by this QATR. This includes design, engineering, procurement, manufacturing, construction, installation, start-up, maintenance, modifications, operations, and decommissioning. CGG personnel performing verification activities are responsible for verifying the achievement of acceptable quality. Activities governed by the QA program are performed as directed by documented instructions, procedures and drawings that are of a detail appropriate for the activity's complexity and effect on safety. Instructions, procedures and drawings specify quantitative or qualitative acceptance criteria as applicable or appropriate for the activity, and verification is against these criteria. Provisions are established to designate or identify the proper documents to be used in an activity, and to ascertain that such documents are being used.

### B.2 DESIGN CONTROL

Station modifications are accomplished in accordance with approved designs and procedures. The controls apply to preparation, review and revision of design documents, including the correct translation of applicable regulatory requirements and design bases into design, procurement and procedural documents. Configuration changes, including temporary changes, are implemented utilizing design control measures at least commensurate with those applied to the original design. Changes to design output documents, including field changes, are controlled in a manner commensurate with that used for the original design. Information on approved changes is transmitted to affected organizations. In addition, temporary design changes (temporary modifications), such as temporary bypass lines, electrical jumpers and lifted leads, and temporary trip-point settings, are controlled by procedures that include requirements for appropriate installation and removal verifications and status tracking.

Engineering has overall control of design documents. Design output documents, and revisions thereto, are controlled by the design office (architect-engineer, supplier, contractor, consultant or engineering) responsible for the design work. Each design organization controls design documents in accordance with approved procedures that provide for development, review, approval, distribution, document control and revision. Design control measures are defined and implemented by trained and qualified personnel through approved procedures and instructions. These procedures and instructions assure that:

1. Design inputs are appropriately specified on a timely basis and correctly translated into design documents.
2. Design interfaces are identified and controlled.
3. The design is suitable for its intended application.
4. Personnel other than those who performed the design verify design adequacy.
5. Design changes, including field changes, are governed by control measures.
6. Deviations and nonconformances are controlled.
7. Design records are identified, controlled, and retrievable.

Design inputs (such as design bases, performance requirements, regulatory requirements, codes, and standards) and changes to design inputs are identified, documented, reviewed and approved, and controlled. Design documents, including drawings and specifications, are prepared and technically reviewed by qualified personnel. The technical reviewer ensures that the design document is in accordance with the design concept, incorporates appropriate design inputs, and conforms to approved procedures and instructions. Appropriate management or supervision approves design change packages prior to release for implementation. Design interfaces, both internal and external, are formally identified, and design activities are coordinated among the participating organizations to ensure that design inputs

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and outputs are properly developed, reviewed, approved, and distributed. Multi-discipline changes are reviewed to ensure integration of design outputs.

Design databases, documents, and procedures are revised to reflect changes installed in the plant. Design records are identified, indexed, and controlled to allow for retrievability of design basis information and to provide evidence of appropriate design controls.

In establishing its program for design control, CGG commits to compliance with NQA-1, 1994, Basic Requirement 3, and Supplement 3S-1, Sections 1, 2, 3, 5, 6, and 7.

### B.3 DESIGN VERIFICATION

Design verification is the process of reviewing, confirming, or substantiating the design to assure the acceptability of the design inputs; adherence to the design process; that design inputs are reflected in the design outputs; and that design changes are implemented under controls commensurate with those applied to the initial design. The extent of and methods used for design verification are documented. Methods for design verification include evaluation of the applicability of standardized or previously proven designs, alternate calculations, qualification testing and design reviews. These methods may be used singly or in combination, depending on the needs for the design under consideration. When design verification is done by evaluating standardized or previously proven designs, the applicability of such designs is confirmed. Any differences from the proven design are documented and evaluated for the intended application.

Design reviews are performed by individuals, or by interdisciplinary or multi-organizational groups, as appropriate. Unless otherwise stated, the verification of design addresses the information conveyed by the design document. When the verification is limited to certain areas or features, the scope or extent and any limitations on the verification are documented.

Qualification testing of prototypes, components, or features is used when the ability of an item to perform an essential safety function cannot otherwise be adequately substantiated. This testing is performed before Station equipment installation where possible, but always before reliance upon the item to perform a safety-related function. Qualification testing is performed under conditions that simulate the most adverse design conditions as determined by analysis, considering relevant operating modes. Test requirements, procedures and results are documented. Results are evaluated to assure that test requirements have been satisfied. Modifications are made if shown to be necessary through testing. Following modification, any necessary retesting or other verification is performed. Scaling laws are established and verified when applicable. Test configurations are documented.

Persons representing applicable technical disciplines are assigned to perform design verifications. These persons are qualified by appropriate education or experience and are not directly responsible for the design being verified. The originator's supervisor may perform this verification, 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, and receives written approval by the appropriate engineering manager.

When designs must be released for use before they have been completed or before they have been verified, the incomplete or unverified parts of the design and the hold point to which work may proceed are identified, and design output documents based on unverified data are identified and controlled. This hold point occurs before the work becomes irreversible or before the item is relied on to perform a safety-related function. Justification for such early release is documented.

Procedures define acceptable verification methods and controls, design parameters subject to verification, acceptance criteria, and verification documentation and records requirements.

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In establishing its program for design verification, CGG commits to compliance with NQA-1, 1994, Basic Requirement 3, and Supplement 3S-1, Section 4.

#### B.4 PROCUREMENT CONTROL

Procurement documents define the characteristics of items or services to be procured, identify applicable regulatory and industry codes or standards requirements, and specify supplier QA program requirements to the extent necessary to assure adequate quality.

Prospective suppliers of safety-related items and services are evaluated to assure that only qualified suppliers are used. Qualified suppliers are periodically evaluated to assure they continue to provide acceptable products and services. Industry programs, such as those applied by ASME, NUPIC, or other established utility groups, are used as input or the basis for supplier qualification whenever appropriate. In addition, CGG commits to Position C.3.2 of Regulatory Guide 1.28, Revision 3, for auditing and evaluation of suppliers, with the exception that for position C.3.2.2, CGG will review the information described therein as it becomes available through its ongoing receipt inspection, operating experience, and supplier evaluation programs, in lieu of performing a specific evaluation on an annual basis. The results of the reviews are promptly considered for effect on a supplier's continued qualification and adjustments made as necessary (including corrective actions, adjustments of supplier audit plans, and input to third party auditing entities, as warranted). In addition, results are reviewed periodically to determine if, as a whole, they constitute a significant condition adverse to quality requiring additional action. A grace period of 90 days may be applied to the performance of triennial supplier audits described in Regulatory Guide 1.28, Revision 3, Regulatory Position 3.2.1. The grace period does not allow the "clock" for a particular activity to be reset forward. However, the "clock" for an activity is reset backwards by performing the activity early. CGG considers that other 10 CFR 50 licensees, Authorized Nuclear Inspection Agencies, National Institute of Standards and Technology, or other State and Federal agencies which may provide items or services to CGG plants are not required to be evaluated or audited.

Procurement of safety-related items and services from suppliers is permitted when CGG has performed a documented evaluation of their capability to provide the items or services specified by procurement documents. However, such evaluation for items or services specified may not necessarily result in the supplier being placed on the Approved Vendors List (AVL). In instances where an identified supplier is the only practical source, procurement may be authorized subject to satisfactory surveillance of the processes and characteristics identified in items (1.) and (2.) below:

1. The supplier is capable of meeting specific procurement document requirements by virtue of their ability to control critical manufacturing and functional processes and characteristics identified by engineering; and
2. Methods have been identified and documented which will verify conformance to these requirements.

When required by operational considerations, an order may be placed with a supplier prior to completion of the evaluation and approval process only after obtaining approval from the nuclear site individual responsible for the procurement function. CGG's acceptance of basic component items or services provided by an unapproved supplier is contingent on the subsequent Q&PA evaluation and approval of the supplier as stated above.

Procurement planning by procuring organizations consists of determining the supplier of choice, methods to be used for acceptance of the item or service, and provisions for ensuring that qualified suppliers continue to provide acceptable products and services. Source inspection (surveillance), certificate of conformance, receipt inspection, and pre- or post-installation testing are methods that are considered for item acceptance. The extent of the acceptance methods and associated verification activities will vary

depending upon the relative importance and complexity of the purchased item or service and the supplier's past performance.

The contents of procurement documents vary according to the item and/or service being purchased and its function in the plant. Procurement documents include the following, as applicable:

1. Material description and/or scope of work to be performed.
2. Technical requirements with reference to applicable drawings, specifications, codes and standards identified by title, document number, revision and date. Any required procedures, such as special process instructions, are identified in such a way as to indicate source and need.
3. Regulatory, administrative and reporting requirements. This includes 10CFR21 requirements, specifications, codes, standards, tests, inspections, and special processes. (The QA programmatic requirements of ASME NQA-1 or ANSI N45.2 may be used, where appropriate.)
4. A requirement for a documented QA program.
5. A requirement for the supplier to invoke applicable quality requirements on subtier suppliers.
6. Provisions for access to supplier and subtier suppliers' facilities and records for inspections, surveillances and audits.
7. Identification of documentation to be provided by the supplier.
8. Provisions for documentation and dispositioning of nonconformances.

Spare and replacement parts are procured in accordance with the following provisions to assure that their performance and quality are at least equivalent to those of the parts that will be replaced:

1. Specifications and codes referenced in procurement documents for spare or replacement items are the same or equivalent to those for the original items or to the reviewed and approved revisions;
2. Where quality requirements for the original items cannot be determined, requirements and controls are established by an engineering evaluation; and
3. Any additional or modified design criteria imposed after previous procurement of the item(s), are identified and incorporated.

Appropriate controls are imposed for the selection, determination of suitability for intended use (critical characteristics), evaluation, receipt, and quality evaluation of commercial grade items or services to ensure that they will perform satisfactorily in service.

In establishing controls for procurement, CGG commits to compliance with NQA-1, 1994, Basic Requirements 4 and 7, and Supplements 4S-1 and 7S-1, with the following exceptions:

1. For Supplement 4S-1, Section 2.3, which requires procurement documents to require a quality program that complies with NQA-1, CGG may apply other nationally recognized and NRC endorsed quality standards, such as N45.2 or 10CFR50 Appendix B, as appropriate to the circumstances of the procurement.
2. For Supplement 4S-1 and Supplement 7S-1, CGG will use the guidance contained in Generic Letter 89-02/EPRI NP-5652 to procure Commercial Grade Items in lieu of these requirements.
3. For Supplement 7S-1, Section 8.1, documentary evidence that items conform to procurement requirements need not be available at the site prior to item installation, but will be available at the site prior to placing reliance on the item for its intended safety function.
4. Supplement 7S-1 Paragraph 8.2.4 states "...post-installation test requirements and acceptance documentation shall be mutually established by the Purchaser and Supplier." In exercising ultimate responsibility for its QA Program, CGG establishes post-installation test requirements, giving due consideration to supplier recommendations.

#### **B.5 PROCUREMENT VERIFICATION**

CGG establishes and implements measures to verify the quality of purchased items and services, whether purchased directly or through contractors, at intervals and to a depth consistent with the item's or service's importance to safety, complexity, quantity and the frequency of procurement. Verification actions include testing, as appropriate, during design, fabrication and construction activities associated with plant maintenance or modifications. Verifications occur at the appropriate phases of the procurement process, including, as necessary, verification of activities of suppliers below the first tier. When suppliers perform work under their own QA programs, those programs are reviewed for compliance with the applicable requirements of 10CFR50 Appendix B and the contract.

In establishing procurement verification controls, CGG commits to compliance with NQA-1, 1994, Basic Requirement 7 and Supplement 7S-1.

#### B.6 IDENTIFICATION AND CONTROL OF ITEMS

CGG establishes and implements provisions for the identification and control of items to prevent the use of incorrect or defective items. This includes controls for consumable materials and items with limited shelf life. The identification of items is maintained throughout fabrication, erection, installation and use so that the item can be traced to its documentation, consistent with the item's effect on safety. Marking locations and methods are selected so as not to affect the function or quality of the item.

In establishing provisions for identification and control of items, CGG commits to compliance with NQA-1-1994, Basic Requirement 8 and Supplement 8S-1.

#### B.7 HANDLING, STORAGE, AND SHIPPING

CGG establishes and implements provisions to control the handling, storage, shipping, cleaning and preservation of items to prevent inadvertent damage, loss or deterioration. These provisions include specific procedures, when required to maintain acceptable quality, for cleaning, handling, storage, packaging, shipping and preserving items important to safety. Items are appropriately marked and labeled during packaging, shipping, handling and storage to identify, maintain and preserve the item's integrity and indicate the need for special controls. Special controls (such as containers, shock absorbers, accelerometers, inert gas atmospheres, specific moisture content levels and temperature levels) are provided when required to maintain acceptable quality.

In establishing provisions for handling, storage and shipping, CGG commits to compliance with NQA-1-1994, Basic Requirement 13 and Supplement 13S-1. CGG sites also commit to items 1 or 2 below:

1. Regulatory Guide 1.38, Revision (site-specific), "Quality Assurance Requirements for Packaging, Shipping, Receiving, Storage, and Handling of Items for Water-Cooled Nuclear Power Plants," (ANSI N45.2.2-1972) – The commitment to this Regulatory Guide is site-specific as described in the approved SAR or License for each nuclear facility. Where items do not conform to the requirements of the Regulatory Guide, they are addressed in the applicable facility's SAR.
2. This alternative applies to Nine Mile Point Nuclear Station (NMPNS). NMPNS commits to ANSI/ASME NQA-2-1983 Part 2.2, "Quality Assurance Requirements for Packaging, Shipping, Receiving, Storage, and Handling of Items for Nuclear Power Plants," for nuclear safety-related activities pertaining directly to permanent plant modifications only. NQA-2-1983 Section 7.1 refers to NQA-2-1983 Part 2.15 for requirements related to handling of items. The scope of Part 2.15 includes hoisting, rigging and transporting of items for nuclear power plants. This scope exceeds the scope of the NRC's original endorsement of ANSI N45.2.2 in Regulatory Guide 1.38, and establishes requirements for which there is no NRC regulatory position. In lieu of compliance with Part 2.15, NMPNS is committed to the requirements of applicable heavy load

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reports for Nine Mile Point Units 1 and 2 that have been approved by the NRC. Unit 2's report is a part of the SAR (Appendix 9C). Unit 1's is a separate report.

Housekeeping practices during normal operations and maintenance activities, including refueling, are established to account for the control of radiation zones and other conditions or environments that could affect the quality of structures, systems and components within the plant. This includes control of cleanness of facilities and materials, fire prevention and protection, disposal of combustible material and debris, control of access to work areas, protection of equipment, radioactive contamination control and storage of solid radioactive waste. Housekeeping practices assure that only proper materials, equipment, processes and procedures are used and that the quality of items is not degraded as a result. Necessary procedures or work instructions, such as for electrical bus and control center cleaning, cleaning of control consoles, and radioactive decontamination are developed and used.

In addition, CGG commits to compliance with the requirements of NQA-1-1994, Subpart 2.3, to establish appropriate provisions for housekeeping; with the following exception:

1. In lieu of the five-level zone designation in Subpart 2.3, CGG may base its control over housekeeping activities on a consideration of what is necessary and appropriate for the activity involved. The controls are effected through procedures or instructions. Factors considered in developing the procedures and instructions include cleanliness control, personnel safety, fire prevention and protection, radiation control and security. The procedures and instructions make use of standard janitorial and work practices to the extent possible.

CGG establishes appropriate cleanliness controls for work on safety related equipment to minimize introduction of foreign material and maintain system/component cleanliness throughout maintenance or modification activities, including documented verification of absence of foreign materials prior to system closure. In addition, CGG commits to compliance with the requirements of Regulatory Guide 1.37, March 1973, "Quality Assurance Requirements for Cleaning of Fluid Systems and Associated Components of Water-Cooled Nuclear Power Plants," (ANSI N45.2.1-1973) – The commitment to this Regulatory Guide is site-specific as described in the approved SAR or License for each nuclear facility. Where items do not conform to the requirements of the Regulatory Guide, they are addressed in the applicable facility's SAR.

## B.8 TEST CONTROL

CGG establishes and implements testing programs to demonstrate that items subject to the provisions of this QATR will perform satisfactorily in service, that the plant can be operated safely and as designed, and that the coordinated operation of the plant as whole is satisfactory. This testing involves the operation of all items in a system or partial system to assure that operation is in accordance with the design criteria and functional requirements. These programs include criteria for determining when testing is required, such as proof tests before installation, pre-operational tests, post-maintenance tests, post-modification tests, inservice tests, and operational tests (such as surveillance tests required by Plant Technical Specifications), to demonstrate that performance of plant systems is in accordance with design intent. Programs also include provisions for establishing and adjusting test schedules and maintaining status for periodic or recurring tests. Tests are performed according to applicable procedures that include, consistent with the effect on safety, (1) instructions and prerequisites to perform the test, (2) use of proper test equipment, (3) acceptance criteria, and (4) mandatory verification points as necessary to confirm satisfactory test completion. Test results are documented and evaluated by the organization performing the test and reviewed by the appropriate authority having responsibility for the item being tested. If acceptance criteria are not met, retesting is performed as needed to confirm acceptability following correction of the system or equipment deficiencies that caused the failure.

In establishing provisions for testing, CGG commits to compliance with NQA-1, 1994, Basic Requirement 11 and Supplement 11S-1.

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**B.9 MEASURING AND TEST EQUIPMENT CONTROL**

CGG establishes and implements provisions to control the calibration, maintenance, and use of measuring and test equipment. The provisions cover equipment such as instruments and gages, tools, reference and transfer standards, and nondestructive examination equipment. The provisions assure that:

1. Measuring and test equipment is calibrated at specified intervals on the basis of the item's required accuracy, intended use, frequency of use, and stability characteristics or other conditions affecting its performance. Alternatively, equipment may be calibrated immediately before and after use if a defined interval is not appropriate.
2. Measuring and test equipment is labeled, tagged or otherwise controlled to indicate its calibration status and provide traceability to calibration test data or records.
3. Calibrations are performed against standards that have an accuracy of at least four times the required accuracy of the equipment being calibrated. When this is not possible, an evaluation of the uncertainty is performed to ensure the equipment being calibrated will be within the required tolerance.
4. Where possible, calibration standards are traceable to appropriate national standards. Calibration standards have greater accuracy than the standards being calibrated, except where the same accuracy as the instruments being calibrated can be shown to be adequate for the service requirements.
5. Measuring and test equipment found out of calibration is tagged or segregated and not used until it is successfully re-calibrated. An evaluation is performed to determine the acceptability of any items measured, inspected or tested with an out-of-calibration device from the time of the previous calibration.

In establishing provisions for control of measuring and test equipment, CGG commits to compliance with NQA-1, 1994, Basic Requirement 12, Supplement 12S-1.

**B.10 INSPECTION, TEST, AND OPERATING STATUS**

CGG establishes and implements measures to identify the inspection, test and operating status of items and components subject to the provisions of this QATR in order to maintain personnel and reactor safety and avoid unauthorized operation of equipment. Procedures require control measures such as locking, tagging, marking, logging or other suitable means to secure and identify equipment in a controlled status. Where necessary to preclude inadvertent bypassing of inspections or tests, or to preclude inadvertent operation, these measures require the inspection, test or operating status be verified before release, fabrication, receipt, installation, test or use. Authority for the application and removal of status indicators or labels is controlled by procedures.

In establishing measures for control of inspection, test and operating status, CGG commits to compliance with NQA-1, 1994, Basic Requirement 14.

### B.11 SPECIAL PROCESS CONTROL

CGG establishes and implements provisions to assure that special processes that require interim process controls to assure quality, such as welding, heat treating, chemical cleaning, and nondestructive examination, are controlled. These provisions include assuring that special processes are accomplished by qualified personnel using qualified procedures and equipment. Special processes are performed in accordance with applicable codes, standards, specifications, criteria or other specially established requirements. Special processes are those where the results are highly dependent on the control of the process or the skill of the operator, or both, and for which the specified quality cannot be fully and readily determined by inspection or test of the final product.

In establishing measures for the control of special processes, CGG commits to compliance with NQA-1, 1994, Basic Requirement 9 and Supplement 9S-1, as well as the applicable ASME Boiler and Pressure Vessel Code provisions established via 10CFR50.55a.

### B.12 INSPECTION

CGG establishes and implements provisions for inspections to assure that items, services and activities affecting safety meet established requirements and conform to applicable documented instructions, procedures and drawings. Inspection may also be applied to items, services and activities affecting plant reliability. Types of inspections may include those verifications related to procurement, as discussed in Sections B.4 and B.5, such as source, in-process, final, and receipt inspection, as well as maintenance, modification, in-service, and operational activities. Inspections are carried out by properly qualified persons independent of those who performed or directly supervised the work.

Inspection planning (for those activities subject to inspection) identifies the characteristics and activities to be inspected, the inspection techniques, the acceptance criteria and the organization responsible for performing the inspection. Inspection planning identifies required hold points, beyond which work is not to proceed without the consent of the inspection organization. Provisions for ASME Boiler and Pressure Vessel Code Authorized Inspections are included when required.

Inspection results are documented by the inspector and approved by authorized personnel. If acceptance criteria are not met, corrected areas are reinspected.

In establishing inspection requirements, CGG commits to compliance with NQA-1-1994, Basic Requirement 10, Supplement 10S-1. In addition, for situations comparable to original construction, CGG commits to compliance with the requirements of Subpart 2.8 for establishing appropriate inspection requirements.

### B.13 CORRECTIVE ACTION

CGG establishes and implements provisions to assure that personnel have both the responsibility and authority to identify conditions adverse to quality, and the opportunity to suggest, recommend or provide solutions to resolve the condition. Provisions also include verification of resolution of significant issues (see also section A.6). Reworked, repaired and replacement items are inspected and tested to meet the original inspection or test requirements, or appropriately specified alternatives (see also sections B.8 and B.12).

If evidence indicates that common components in safety related systems have performed unsatisfactorily, compensatory or corrective measures are planned prior to replacement or repair of such components. Replacement components receive adequate testing or are of a design for which experience indicates a high

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probability of satisfactory performance. Consideration is given to phased replacement to permit inservice performance to be evaluated and minimize the possibility of systemic failure.

Issues are periodically analyzed for the identification of adverse quality trends. The existence of an adverse quality trend is resolved in accordance with this section. A trend report is issued to management at intervals specified in approved procedures.

Nonconforming items may be conditionally released for installation, test, energization, pressurization, or use if the conditional release will not adversely affect nor preclude identification and correction of the nonconformance. Dispositions of conditionally released items are resolved before the items are relied upon to perform their safety-related functions. Conditional release evaluations are documented, reviewed, and approved prior to implementation.

In establishing provisions for corrective action and control of non-conforming items, CGG commits to compliance with NQA-1, 1994, Basic Requirements 15 and 16, and Supplement 15S-1.

#### B.14 DOCUMENT CONTROL

CGG establishes and implements provisions to specify the format and content (see Appendix B for procedures), and control the development, review, approval, issue, use and revision, of documents that specify quality requirements or prescribe activities affecting quality or safe operation to assure the correct documents are being employed. These provisions assure that specified documents are reviewed for adequacy, approved prior to use by authorized persons, and distributed according to current distribution lists and used at the location where the prescribed activity takes place. Procedures governing generating site activities (see Appendix B) are reviewed by qualified persons, other than the originator or preparer. Such procedure review includes determination whether additional cross-discipline reviews are required. Provisions include establishing levels of use, such as requiring the document to be present at the work location. Documents subject to control provisions include, but are not limited to, drawings (design, as-built), engineering documents (calculations, analyses, specifications, computer codes, Safety Analysis Reports, facility Technical Specifications), and procedures (administrative, operating, emergency operating, maintenance, calibration, surveillance, inspection, test). Other documents, such as those related to procurement, corrective actions, and assessments, are controlled as defined by the provisions and commitments cited in those sections of this QATR. Controlled copies of instructions and procedures are made available to and used by the persons performing the activity covered. New or revised controlled documents are made available in a timely fashion to support ongoing work and preclude use of incorrect information. Superseded documents are identified or removed from availability. Each site maintains documentation that describes how implementing documents are maintained to assure that quality assurance program requirements are met and are not inadvertently removed in later revisions.

Revisions to controlled documents are reviewed for adequacy and approved for release by the same organization(s) as originally did so, or by other designated organizations that are qualified and sufficiently knowledgeable of the requirements and intent of the original document. CGG also establishes programmatic procedure preparation, review and usage controls that ensure procedures are technically and administratively correct. These controls ensure that procedures are reviewed when pertinent source material is revised (such as when Technical Specifications are revised), when unusual incidents occur, when plant modifications are made, and when significant deficiencies are identified. Procedures may also be reviewed because industry experience reviews, use during job execution or training, self-assessments, or independent assessments identify deficiencies or opportunities for improvement. Revisions are made as necessary.

Temporary changes to approved procedures that do not change the intent are approved by two members of plant staff knowledgeable in the areas affected by the procedure. Temporary changes to procedures identified in Appendix B are approved by two members of plant staff knowledgeable in the areas affected by the procedure, at least one of whom is a person holding an active senior reactor operator's license.

Temporary changes are documented, reviewed by the PORC or by a Qualified Reviewer, and approved by the designated approval authority within 14 days of implementation.

The Plant General Manager may designate specific procedures or classes of procedures in writing to be reviewed by Qualified Reviewers in lieu of review by the PORC. Review by Qualified Reviewers shall be in accordance with implementing procedures. In addition, 10CFR50.59 and/or 10CFR72.48 reviews are performed on designated procedures, including subsequent changes, to determine if NRC review and approval is required prior to implementing the procedures/changes.

Procedures required by Technical Specifications shall be approved by the Plant General Manager or by cognizant managers or other supervisory personnel prior to implementation as specified by administrative requirements. The approval authority for specific procedures or classes of procedures shall be designated in writing by the Plant General Manager.

In establishing provisions for document control, CGG commits to compliance with NQA-1, 1994, Basic Requirement 6 and Supplement 6S-1.

#### B.15 RECORDS

CGG establishes and implements provisions to ensure that sufficient records of items and activities affecting quality are generated and maintained to reflect completed work. Such records may include, but are not limited to, design, engineering, procurement, manufacturing, construction, inspection, test, installation, modification, operations, maintenance, decommissioning, corrective action, assessment, and associated reviews. The provisions establish requirements for records administration, including generation, receipt, preservation, storage, safekeeping, retrieval and final disposition. For activities governed by 10CFR71 or 72, these provisions address the specific requirements of sections 71.135 and 72.174.

CGG uses the list of records in 10CFR71.135, 10CFR72.174, and Regulatory Guide 1.28, Revision 3, position C.2 (Table 1) to establish the types of records that will be created and retained in support of plant operation. Regulatory Guide 1.28, Revision 3, Table 1 addresses design, construction and initial start-up records and will be applied to operating and decommissioning phase records that are similar in nature to the construction records. Additional operations phase records and their retention periods are identified in Appendix D to this QATR. In those cases where local or State retention requirements are more restrictive than the regulatory guidance, the more restrictive requirements are met. In addition, should CGG choose electronic media storage as a means of maintaining required records; CGG will comply with NRC guidance in RIS 2000-18.

In establishing provisions for records, CGG commits to compliance with NQA-1, 1994, Basic Requirement 17 and Supplement 17S-1, with the following exceptions:

1. Supplement 17S-1, section 4.2(b) requires records to be firmly attached in binders or placed in folders or envelopes for storage in steel file cabinets or on shelving in containers. For hard-copy records maintained by CGG, the records are suitably stored in steel file cabinets or on shelving in containers, except that methods other than binders, folders or envelopes may be used to organize the records for storage.
2. In lieu of the storage facility requirements of Supplement 17S-1 Section 4.4, CGG allows the following alternative storage requirements for organizations other than the records management organization. Organizations that originate records and do not transfer them to the records management within 30 days of completion shall establish one of the following three controls as alternatives to the requirements specified for the records management organization:
  - 1) Duplicate Storage - Either A or B.

- A. Within 30 days of completion of a record, a duplicate record file shall be established. This activity shall be controlled by procedures which provide for the following: (a) Assignment of responsibility for records; (b) Description of storage area; (c) Description of filing system; (d) An index of the filing system; (e) Rules governing access to and control of files; (f) Methods for maintaining control of and accountability for records removed from the file; (g) Method for filing supplemental information and disposing of superseded or obsolete records; (h) Method for preserving records to prevent deterioration; (i) Method for maintaining specially processed records that are sensitive to light, pressure, or temperature; (j) Transfer of duplicates to the records management organization within two years of completion of records.
  - B. Make arrangements with at least one other department that receives a copy of each document to subject this other copy to the controls specified above.
- 2) Fire-resistant Building Storage - Records shall be stored in steel cabinets located in a non-combustible building with a fire suppression system. The procedural controls defined for duplicate storage shall be applied.
  - 3) Non-fire-resistant Building Storage - Within non-fire-resistant facilities, records shall be stored in UL one-hour-minimum fire-rated storage cabinets and be subject to the procedural controls defined for duplicate storage. CGG defines a non-combustible Building as follows: A facility constructed to resist the initiation or spreading of fire; non-combustible materials used; building construction evaluated by fire protection consultant or engineer and found to be in accordance with requirements of applicable building construction code for "non-combustible" construction.
3. This alternative applies to Calvert Cliffs Nuclear Power Plant. In lieu of the reinforced concrete, concrete block, masonry, or equal construction requirements of Supplement 17S-1, Section 4.4.1(a), the records vault is entirely enveloped by a structurally sound, non-combustible building. Second, the vault rests on a reinforced slab on grade and its walls extend fully to the underside of the structural deck. Third, the walls of the vault are constructed of gypsum wallboard on metal studs per Underwriters Laboratory Test Number U412, assuring the equivalent of 2-hour fire resistant construction. This is equal construction to concrete block in terms of fire protection. The walls carry no structural load; hence, they provide equivalent structural integrity to that needed of concrete block. Supplement 17S-1 Section 4.4.1(b) requires floor and roof drainage control. If a floor drain is provided, a check valve (or equal) shall be included. In lieu of this requirement, the vault is contained within an environmentally protected building. As such, it has no roof, or need for floor drain.

#### B.16 PLANT MAINTENANCE

CGG establishes controls for the maintenance or modification of items and equipment subject to this QATR to ensure quality at least equivalent to that specified in original design bases and requirements, such that safety-related structures, systems and components are maintained in a manner that assures their ability to perform their intended safety function(s). A preventative maintenance program prescribes the frequency and type of maintenance to be performed. Adjustments are made where necessary to improve equipment performance. Maintenance activities (both corrective and preventive) are scheduled and planned so as not to unnecessarily compromise the safety of the plant. Permission to release equipment or systems for maintenance is granted by designated operating personnel who are responsible to verify that the equipment or system can be released and determine how long it may be out of service. This includes attention to the potentially degraded degree of protection when one subsystem of a redundant safety system has been removed for maintenance. The release is also documented. When equipment is ready to be returned to service, operating personnel place the equipment in operation and verify and document its functional acceptability. In completing maintenance and restoring equipment, attention is given to restoration of normal conditions, such as removal of jumpers or signals used in maintenance or testing, or such as returning valves, breakers or switches to proper operating positions. Inspections (verifications) of

maintenance or modification activities are established, conducted and documented as required by Section B.12 to establish a suitable level of confidence in affected structures, systems, or components.

**B.17 COMPUTER SOFTWARE CONTROL**

CGG establishes and implements provisions to assure that computer software used in applications affecting safety is prepared, documented, verified and tested, and used such that the expected output is obtained and configuration control maintained. To this end, CGG commits to compliance with the requirements of NQA-1 1994, Supplement 11S-2 to establish the appropriate provisions.

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## C. ASSESSMENT

### C.1 METHODOLOGY

Personnel responsible for the self-assessment function, including onsite and offsite nuclear safety review committee activities, audits, and other independent assessments are cognizant of day-to-day activities so that they can act in a management advisory function. Self-assessment activities are technically and performance oriented, with the primary focus on the quality of the end product and a secondary focus on procedures and processes. Self-assessments are accomplished using instructions, procedures, or other appropriate means that are of a detail commensurate with the activity's complexity and importance to safety.

Ongoing and periodic self-assessments are used to identify safety concerns and improve performance. Self-assessments compare actual performance to management expectations, performance of other high-performing organizations, industry standards of excellence, and regulatory requirements. Skilled, knowledgeable internal and external personnel perform self-assessments. Improvement needs identified by self-assessments are assigned for action and tracked through completion.

Benchmarking is used to identify options for solving problems, improving performance, and emulating best practices. Managers and coworkers frequently observe work and training activities to recognize strong performance and identify needed improvements. Performance measures are used to identify areas of strong performance, areas needing improvement, and precursors to significant problems.

The organization supports and learns from participation in self-assessments and evaluations at other facilities. Results of self-assessments, observations, corrective actions, and independent oversight assessments are reviewed for underlying problems that need resolution. Self-assessment and corrective action program effectiveness is periodically assessed and the programs are adjusted.

### C.2 QUALITY AND PERFORMANCE ASSESSMENT

A program of planned and periodic assessments is established and implemented to confirm that activities affecting quality comply with the QA program and that the QA program has been implemented effectively. Assessments provide comprehensive independent evaluation of activities and procedures. Monitoring and assessment activities are conducted in sufficient depth to identify potentially significant nuclear safety problems. Planning activities identify the characteristics and activities to be assessed and the acceptance criteria. Assessments are conducted using the predetermined acceptance criteria. Use of relevant industry and in-house operating experience information is reviewed during periodic assessments.

Scheduling and resource allocation are based on the status and safety importance of the activity or process being assessed. Scheduling is dynamic to allow for additional assessments in areas where QA program effectiveness is in doubt. Activities of groups performing independent monitoring and assessment are coordinated to encompass all matters relevant to nuclear safety and reliability.

Audits of selected aspects of operational phase activities are performed with a frequency commensurate with their strength of performance and safety significance and in such a manner as to assure that an audit of all safety-related functions is completed within a period of two years. Audits may also be used to meet the periodic review requirements of the code for the Security, Emergency Preparedness, and Radiological Protection programs within the provisions of the applicable code. Audits and assessment activities may be conducted continuously.

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The audits performed within a period of two years will include, as a minimum, activities in the following areas:

1. The results of actions taken to correct deficiencies that affect nuclear safety and occur in facility equipment, structures, systems, or method of operation.
2. The conformance of facility operation to provisions contained within the technical specifications and applicable license conditions, including administrative controls.
3. The performance, training, and qualifications of the facility staff.
4. The performance of activities required by the QA program to meet the criteria of 10CFR50, Appendix B.
5. Observation of performance of operating, refueling, maintenance and modification activities.
6. The Fire Protection Program and implementing procedures. A fire protection equipment and program implementation inspection and audit utilizing either a qualified offsite fire protection engineer or an outside qualified fire protection consultant.
7. The radiological environmental monitoring program and the results thereof;
8. The Offsite Dose Calculation Manual and implementing procedures;
9. The Process Control Program and implementing procedures for processing and packaging of radioactive wastes;
10. The performance of activities required by the QA program for effluent and environmental monitoring; and
11. Other activities and documents considered appropriate by the NSRB or the CNO.

A grace period of 90-days is applied to the audits listed above. The grace period does not allow the "clock" for a particular period to be reset forward. For example, if a biennial audit is due on June 15 of a particular year, but is not performed until August 13, the next due date for that audit will be June 15 of the second year following. However, the clock for an activity is reset backwards by performing the activity early. The 90-day grace period does not apply to audits specified in regulations (i.e. Emergency Preparedness, Security, and Fitness for Duty).

Assessment results are documented and reviewed by the assessor's management and by management having responsibility in the area assessed. Actions to address issues identified through independent monitoring and assessment activities are tracked and completed in a timely manner. Follow-up action, including a re-look at deficient areas, is initiated as necessary. When work carried out under the requirements of the QA program is delegated to others, implementation of that work is assessed by CGG.

If a difference of opinion arises between Q&PA personnel and those of other Sections or Departments, the dispute is resolved as follows: The site management position responsible for Q&PA first tries to resolve the matter with the organization responsible for conducting the activity. If a resolution cannot be obtained, the matter is referred up through the following management personnel until it is resolved:

1. The site management position responsible for Q&PA and the site management position responsible for performing the activity. NOTE: If the dispute is internal to Q&PA, the site management position responsible for Q&PA will settle the issue.
2. The fleet management position responsible for Q&PA and the appropriate Site Vice President
3. The Senior Vice President and Chief Nuclear Officer

Individuals assigned to perform independent monitoring and assessments have the necessary experience, training, and authority to conduct the reviews, audits, or analyses. Individuals assigned to perform independent monitoring and assessments do not have line responsibility for the area being assessed. Assessment resources may be supplemented with technical specialists as needed.

The effectiveness of independent monitoring and assessments are evaluated every two years by an independent organization such as the Nuclear Industry Evaluation Program (NIEP). Results are reported to senior management, and corrective actions are implemented as needed.

In establishing the independent assessment program, CGG commits to compliance with NQA-1-1994, Basic Requirement 18 and Supplement 18S-1.

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**APPENDIX A****REVIEW FUNCTIONS OF THE PORC, NSRB, AND ISEG**

CGG ensures that operational phase activities of the facilities are independently reviewed on a periodic basis. The purpose of these reviews is to: (1) verify that operational phase activities are performed in accordance with this QATR and CGG administrative controls, procedures, and license provisions; (2) review significant proposed plant changes, tests, and procedures; (3) verify that events that are reportable to the NRC are promptly investigated and corrected so as to reduce the probability of recurrence; and (4) detect trends that may not be apparent to a day-to-day observer.

These review functions are performed through a combination of independent review bodies and internal audits. This appendix describes the review program implemented by the independent review bodies. The internal audit program is addressed in Section C.2 of this QATR. The review programs of this appendix ensure that the personnel performing this review collectively have the experience and competence necessary to review problems in the following areas:

1. Nuclear power plant operations
2. Nuclear engineering
3. Chemistry and radiochemistry
4. Metallurgy
5. Nondestructive testing
6. Radiological safety
7. Mechanical engineering
8. Electrical engineering
9. Instrumentation and control
10. Administrative controls and quality assurance practices
11. Training
12. Emergency plans and related procedures and equipment

An individual may possess competence in more than one specialty area. The established administrative controls contain provisions to assure the appropriate expertise is applied to the independent reviews, including the use of consultants when necessary

Personnel performing the independent review functions meet the qualification requirements of ANS-3.1-1993, subsection 4.7, as clarified in NRC Regulatory Guide 1.8, Revision 3, and this QATR. The provisions of Section 4.1.1.1 of ANS-3.1-1993 may be applied. Independent review personnel shall also complete the required qualification training for the function they are performing.

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## 1.0 PLANT OPERATIONS REVIEW COMMITTEE (PORC)

### 1.1 FUNCTION

The PORC shall function to advise the Plant General Manager on all matters related to nuclear safety for their assigned Company facilities.

### 1.2 COMPOSITION

The PORC shall be composed of a minimum of five members, including the Chairperson. The Plant General Manager shall appoint members in writing, including the PORC Chairperson and Vice Chairpersons drawn from the committee members.

### 1.3 ALTERNATES

Alternate members shall be appointed in writing by the PORC Chairperson to serve on a temporary basis. Each alternate shall meet the minimum qualifications for regular PORC members, and shall have the same area of expertise as the member being replaced.

### 1.4 MEETING FREQUENCY

The PORC shall meet at least once per calendar month and as convened by the PORC Chairperson or one of the designated Vice Chairpersons.

### 1.5 QUORUM

A quorum of the PORC shall include the Chairperson or one of the designated Vice Chairpersons and two members or designated alternates. However, a maximum of one third of the voting membership may be designated alternates. For any PORC decision affecting site-wide issues, the Chairperson shall ensure appropriate representation.

### 1.6 RESPONSIBILITIES

The PORC shall be responsible for:

- a. Review of (1) all procedures and programs required by facility Technical Specifications administrative controls and changes thereto that require a regulatory evaluation under the facility's 10CFR50.59 and 10CFR72.48 screening program, (2) changes to the quality program determined to be reductions in the commitment to quality under the provisions of 10CFR50.54(a), and (3) any other proposed procedures, programs, or changes thereto affecting facility nuclear safety as determined by the Plant General Manager.
- b. Review of all proposed tests and experiments that affect nuclear safety.
- c. Review of all proposed changes to Technical Specifications or the Operating License prior to their submittal to the NRC.
- d. Review of all proposed changes or modifications to systems or equipment that affect nuclear safety.
- e. Rendering determinations in writing or meeting minutes if any item considered under (a) through (d) above, as appropriate and as provided by 10CFR50.59, 10CFR50.92, or 10CFR72.48 requires a license amendment or requires a significant hazards consideration determination.

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- f. Investigation of all violations of the Technical Specifications including the preparation and forwarding of reports covering evaluation and recommendations to prevent recurrence to the Plant General Manager, the Site Vice President, the CNO, and to the Chairperson of the Nuclear Safety Review Board.
  - g. Review of all Reportable Events.
  - h. Review of unit operations to detect potential hazards to nuclear safety.
  - i. Performance of special reviews, investigations or analyses and reports thereon as requested by the Plant General Manager or the Chairperson of the Nuclear Safety Review Board.

#### 1.7 AUTHORITY

The Plant Operations Review Committee shall:

- a. Recommend to the approval authority approval or disapproval of procedures considered under 1.6.a above.
- b. Recommend to the Plant General Manager written approval or disapproval in meeting minutes of items considered under Responsibilities 1.6.a through i above. The Plant General Manager will report any issues that require higher level of authority to the Site Vice President.
- c. Evaluate root causes and recommended actions to prevent recurrence for items considered under 1.6.f through g above.
- d. Provide written notification within 24 hours to the Site Vice President and the Chairperson of the Nuclear Safety Review Board of disagreement between the Plant Operations Review Committee and the Plant General Manager; however, the Plant General Manager shall have responsibility for resolution of such disagreements pursuant to Technical Specifications.

#### 1.8 RECORDS

The Plant Operations Review Committee shall maintain written minutes of each meeting and copies shall be provided to the Site Vice President, Chairperson of the Nuclear Safety Review Board, and the Plant General Manager. Records of the minutes shall be maintained in accordance with Section B.15 of this QATR. Open items shall be assigned, tracked and resolved.

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## 2.0 NUCLEAR SAFETY REVIEW BOARD (NSRB)

The NSRB shall ensure that periodic independent reviews and audits of activities are conducted by qualified individuals free from the pressures of plant operations. For new nuclear power plant construction, the NSRB shall be functional at least one year prior to initial core loading. The NSRB serves in an advisory capacity to the CNO.

### 2.1 REVIEW RESPONSIBILITIES

The NSRB shall ensure periodic independent reviews and audits of activities as stated in the facility Technical Specifications and this QATR are performed. Review of events shall include the results of any investigations made and the recommendations resulting from such investigations to prevent or reduce the probability of recurrence of the event. Additional review activities by the NSRB should be performed to verify adequate organizational response to adverse performance trends.

The NSRB should monitor the results of audits, evaluations, and assessment activities to ensure that items that could affect plant safety are reviewed. The NSRB may delegate review functions to subcommittees, that may include NSRB members, provided that the subcommittees report the results of their reviews to the NSRB.

### 2.2 COMPOSITION

The NSRB shall be composed of at least five members, including the Chairperson, of whom no more than a minority are members of the onsite operating organization. The CNO shall appoint, in writing, a Chairperson. The Chairperson shall appoint, in writing, a minimum of four members to the NSRB and shall designate from this membership, in writing, a Vice Chairperson. Consultants should be utilized as determined by the NSRB Chairperson to provide expert advice to the NSRB.

### 2.3 ALTERNATES

Alternates shall be designated in advance, but their use shall be restricted to legitimate absences of principals.

### 2.4 MEETING FREQUENCY

The NSRB shall meet at least once per six months. During initial operation of a newly constructed power plant, the meeting frequency shall be at least once per calendar quarter.

NSRB decisions should be made at formal meetings. However, in extenuating circumstances where it is impractical to convene a quorum for a formal meeting within a necessary time constraint, alternative means such as a conference call may be used. In such cases, action taken shall be reviewed by a quorum of the NSRB at its next regularly scheduled meeting.

### 2.5 QUORUM

The quorum of the NSRB necessary for the performance of the NSRB review and audit functions shall consist of a majority of regular members, including the Chairperson or Vice Chairperson. No more than a minority of the quorum shall have line responsibility for operation of a Company nuclear facility.

### 2.6 RECORDS

Minutes of all NSRB meetings shall be prepared and retained. All documents reviewed should be identified. Decisions and recommendations made by the NSRB shall be documented. Minutes of

each NSRB meeting shall be disseminated promptly to appropriate members of management having responsibility in the area reviewed. Records of meeting minutes shall be retained in accordance with Section B.15 of this QATR.

### 3.0 INDEPENDENT SAFETY ENGINEERING GROUP (ISEG)

Independent safety review is performed to meet the individual unit's commitment to NUREG-0737, Section I.B.1.2, "Independent Safety Engineering Group," as described in the unit's safety analysis report, if applicable.

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**APPENDIX B****PROCEDURES**

CGG uses procedures to provide an approved, preplanned method of conducting activities affecting safety. As stated in position C.1 of Regulatory Guide 1.33, Revision 2, CGG commits to use Appendix A of Regulatory Guide 1.33 as guidance for establishing the types of procedures that are necessary to control and support plant operation. Procedures are sufficiently detailed for a qualified individual to perform the required function without direct supervision, but may not provide a complete description of the system or plant process.

Guidance is established to identify the manner in which procedures are to be implemented, including identification of those tasks that require (1) the written procedure to be present and followed step by step while the task is being performed, (2) the user to have committed the procedure steps to memory, (3) verification of completion of significant steps, as by initials or signatures or use of check-off lists. Procedures that are required to be present and referred to directly are those developed for extensive or complex jobs where reliance on memory cannot be trusted, tasks that are infrequently performed, and tasks where steps must be performed in a specified sequence. When documentation of an action is specified, the necessary data is recorded as the task is performed.

The format of procedures may vary from plant to plant within CGG; however, procedures include the following elements, as appropriate to the purpose or task covered. These elements are not intended to imply a specific format is required:

**Title/status:** each procedure is given a title descriptive of the work or subject it addresses, and includes a revision number and/or date and an approval status.

**Purpose/Statement of applicability:** the purpose for which the procedure is intended is clearly stated (if not clear from the title).

**References:** applicable references, including reference to appropriate Technical Specifications, are included. References are included within the body of the procedure when the sequence of steps requires other tasks to be performed (according to the reference) prior to or concurrent with a particular step.

**Prerequisites:** identifies those independent actions or procedures that must be accomplished and plant conditions which must exist prior to performing the procedure. A prerequisite applicable to only a specific portion of a procedure is so identified.

**Precautions:** alert the user to those important measures to be used to protect equipment and personnel, including the public, or to avoid an abnormal or emergency situation during performance of the procedure. Cautionary notes applicable to specific steps are included in the main body of the procedure and are identified as such.

**Limitations and actions:** limitations on the parameters being controlled and appropriate corrective measures to return the parameter to the normal control band are specified.

**Main body:** contains the step-by-step instructions in the degree of detail necessary for performing the required function or task.

**Acceptance criteria:** the quantitative or qualitative criteria against which the success or failure (as of a test-type activity) of the step or action would be judged.

**Checkoff lists:** complex procedures use checkoff lists. These lists may be included as part of the procedure or may be appended to the procedure.

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Certain types of procedures governing generating site activities are common to all plants. Individual plant terminology may vary from the following, and some procedure types may be combined. Sufficient procedures are maintained to provide appropriate direction for these activities. In amplification to the appropriate elements above, such procedures are further defined as follows:

**System Procedures:** contain instructions for energizing, filling, venting, draining, starting up, shutting down, changing modes of operation and other instructions appropriate for operations of systems related to the safety of the plant. Separate procedures may be developed for correcting off-normal conditions for those events where system complexity may lead to operator uncertainty. System procedures contain check-off lists where appropriate.

**Start-up Procedures:** contain instructions for starting the reactor from cold or hot conditions and establishing power operation. This includes documented determination that prerequisites have been met, including confirmation that necessary instrumentation is operable and properly set; necessary system procedures, tests and calibrations have been completed; and required approvals have been obtained. The main body includes the major steps of the start-up sequence, including reference to appropriate systems procedures. Start-up procedures contain check-off lists where appropriate.

**Shutdown Procedures:** contain instructions for operations during controlled shutdown and following reactor trips, and include instructions for establishing or maintaining hot standby or cold shutdown conditions, as applicable. The major steps involved in shutting down the plant are specified, including instructions for such actions as monitoring and controlling reactivity, load reduction, cooldown rates, activating or deactivating equipment, and provisions for decay heat removal. Check-off lists are used, as appropriate, for confirming completion of major steps in proper sequence.

**Power Operation and Load Changing Procedures:** contain instructions for steady-state power operation and load changing that include provisions for use of control rods, chemical shim, coolant flow channel control, or for any other system available for short- or long-term control of reactivity, making deliberate load changes and adjusting operating parameters.

**Process Monitoring Procedures:** contain instructions for monitoring performance of plant systems to assure that core thermal margins and coolant quality are maintained in acceptable status at all times, that integrity of fission product barriers is maintained, and that engineered safety features and emergency equipment are in a state of readiness to keep the plant in a safe condition if needed. Maximum and minimum limits for process parameters are appropriately identified.

**Fuel Handling Procedures:** contain instructions for core alterations, accountability of fuel and partial or complete refueling operations that include, for example, continuous monitoring of neutron flux throughout core loading, periodic data recording, audible annunciation of abnormal flux increases, and evaluation of core neutron multiplication to verify safety of loading increments. Procedures are also provided for receipt and inspection of new fuel, and for fuel movements in the spent fuel storage areas. Fuel handling procedures include prerequisites to verify the status of systems required for fuel handling and movement; inspection of replacement fuel and control rods; designation of proper tools, proper conditions for spent fuel movement, proper conditions for fuel cask loading and movement; and status of interlocks, reactor trip circuits and mode switches. These procedures provide requirements for refueling, including proper sequence, orientation and seating of fuel and components, rules for minimum operable instrumentation, actions for response to fuel damage, verification of shutdown margin, communications between the control room and the fuel handling station, independent verification of fuel and component locations, criteria for stopping fuel movements, and documentation of final fuel and component serial numbers and locations.

**Maintenance Procedures:** contain instructions in sufficient detail to permit maintenance work to be performed correctly and safely, and include provisions for conducting and recording results of required inspections or tests. Appropriate referencing to other procedures or vendor manuals is provided. Instructions are also provided, although not necessarily in Maintenance Procedures, for equipment

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removal and return to service, and appropriate radiation protection measures (such as protective clothing and radiation monitoring).

**Radiation Control Procedures:** contain instructions for implementation of program requirements necessary to meet regulatory commitments, including acquisition of data and use of equipment to perform necessary radiation surveys, measurements and evaluations for the assessment and control of radiation hazards. These procedures provide requirements for monitoring both external and internal exposures of employees, utilizing accepted techniques; routine radiation surveys of work areas; environmental monitoring in the vicinity of the plant; radiation monitoring of maintenance and special work activities, and for maintaining records demonstrating the adequacy of measures taken to control radiation exposures to employees and others.

**Calibration and Test Procedures:** contain instructions for periodic calibration and testing of safety related instrumentation and control systems, and for periodic calibration of measuring and test equipment used in activities affecting the quality of these systems. These procedures provide for meeting surveillance requirements and for assuring measurement accuracy adequate to keep safety related parameters within operational and safety limits.

**Chemistry-radiochemistry Control Procedures:** contain instructions for chemical and radiochemical activities such as the nature and frequency of sampling and analyses; maintaining coolant quality within prescribed limits; limitations on concentrations of agents that could cause corrosive attack, foul heat transfer surfaces or become sources of radiation hazards due to activation; control, treatment and management of radioactive wastes and control of radioactive calibration sources, including shipping.

**Emergency Procedures:** contain instructions for response to potential emergencies so that a trained operator will know in advance the expected course of events that will identify an emergency and the immediate actions that should be taken in response. Format and content of emergency procedures are based on regulatory and Owner's Group(s) guidance that identify potential emergency conditions and generally require such procedures to include a title, symptoms to aid in identification of the nature of the emergency, automatic actions to be expected from protective systems, immediate operator actions for operation of controls or confirmation of automatic actions, and subsequent operator actions to return the reactor to a normal condition or provide for a safe extended shutdown period under abnormal or emergency conditions.

**Emergency Plan Implementing Procedures:** contain instructions for activating the Emergency Response Organization and facilities, protective action levels, organizing emergency response actions, establishing necessary communications with local, state and federal agencies, and for periodically testing the procedures, communications and alarm systems to assure they function properly. Format and content of such procedures are such that requirements of each site's NRC approved Emergency Plan are met.

**Test and Inspection Procedures:** contain the objectives, acceptance criteria, prerequisites for performing the test or inspection, limiting conditions, and appropriate instructions for performing the test or inspection. These procedures also specify any special equipment or calibrations required to conduct the test or inspection and provide for appropriate documentation and evaluation by responsible authority to assure test or inspection requirements have been satisfied. Where necessary, hold or witness points are identified within the procedures and require appropriate approval for the work to continue beyond the designated point. These procedures provide for recording the date, identification of those performing the test or inspection, as-found condition, corrective actions performed (if any), and as-left condition, as appropriate for the subject test or inspection.

While not specifically a procedure type, **Temporary Procedures** may be used to direct operations during testing, refueling, maintenance and modifications; to provide guidance in unusual situations not within the scope of normal procedures; and to insure orderly and uniform operations for short periods when the plant, a system, or a component of a system is performing in a manner not covered by existing detailed procedures, or has been modified or affected in such manner that portions of existing procedures do not apply. Temporary Procedures include designation of the period of time during which they may be used.

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**APPENDIX C****DEFINITIONS**

CGG uses the definitions of terms as provided in Section 4 of the Introduction of NQA-1-1994 in interpreting the requirements of NQA-1 and the other standards to which the QATR commits. In addition, definitions are provided for the following terms not covered in NQA-1:

**Administrative controls:** rules, orders, instructions, procedures, policies, practices and designations of authority and responsibility.

**Emergency procedures:** see Appendix B.

**Experiments:** performance of plant operations carried out under controlled conditions in order to establish characteristics or values not previously known.

**Independent Review:** review completed by personnel not having direct responsibility for the work function under review regardless of whether they operate as part of an organizational unit or as individual staff members.

**Maintenance and modification procedures:** written procedures defining the policies and practices by which structures, mechanical, electrical and instrumentation and control systems, and components thereof, are kept in a condition of good repair or efficiency so that they are capable of performing their intended functions.

**Nuclear power plant:** any plant using a nuclear reactor to produce electric power, process steam or space heating.

**Off-normal condition procedures:** written procedures which specify operator actions for restoring an operating variable to its normal controlled value when it departs from its range, or to restore normal operating conditions following a perturbation. (May be called Abnormal, Off-normal or other terms conveying the same intent.)

**On-site operating organization:** on-site personnel concerned with the operation, maintenance and certain technical services.

**Operating activities:** work functions associated with normal operation and maintenance of the plant, and technical services routinely assigned to the on-site operating organization.

**Operating procedures:** written procedures defining the normal methods, means and limits of operation of the nuclear power plant, a plant system or systems, or processes, including actions to be taken by operating personnel for removal from and return to service equipment on which maintenance is to be or has been performed.

**Operational phase:** that period of time during which the principal activity is associated with normal operation of the plant. This phase of plant life is considered to begin formally with commencement of initial fuel loading, and ends with plant decommissioning.

**Review:** a deliberately critical examination, including observation of plant operation, evaluation of assessment results, procedures, certain contemplated actions, and after-the-fact investigations of abnormal conditions.

**Supervision:** direction of personnel activities or monitoring of plant functions by an individual responsible and accountable for the activities they direct or monitor.

**Surveillance testing:** periodic testing to verify that safety related structures, systems and components continue to function or are in a state of readiness to perform their functions.

**System:** an integral part of nuclear power plant comprising components which may be operated or used as a separate entity to perform a specific function.

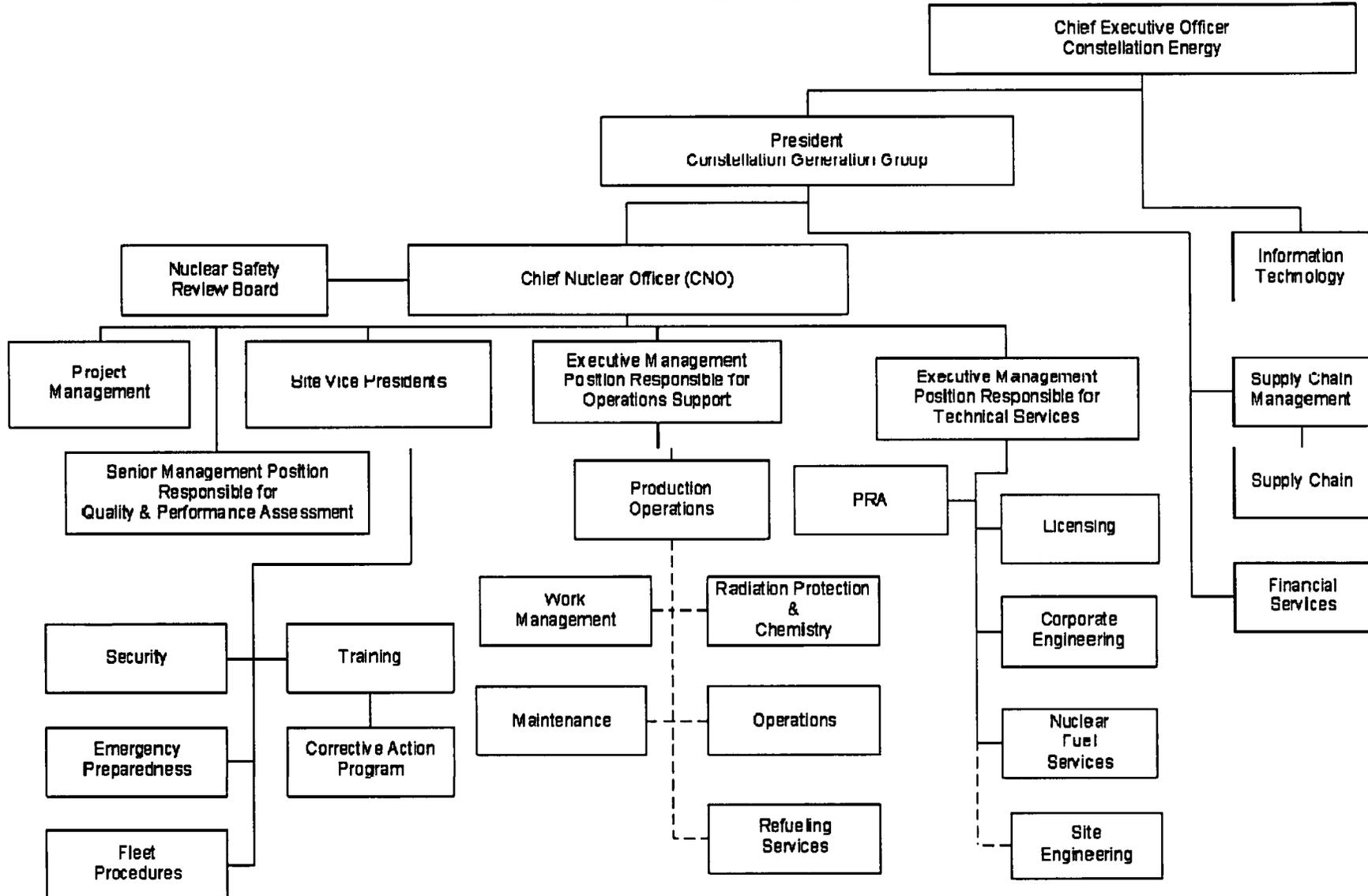
**APPENDIX D**

**OPERATIONS PHASE ACTIVITY RECORDS**

The following table provides a list of operations phase nonpermanent and lifetime records and their respective retention times. These records retention requirements are in addition to those described in Section B.15 of this QATR.

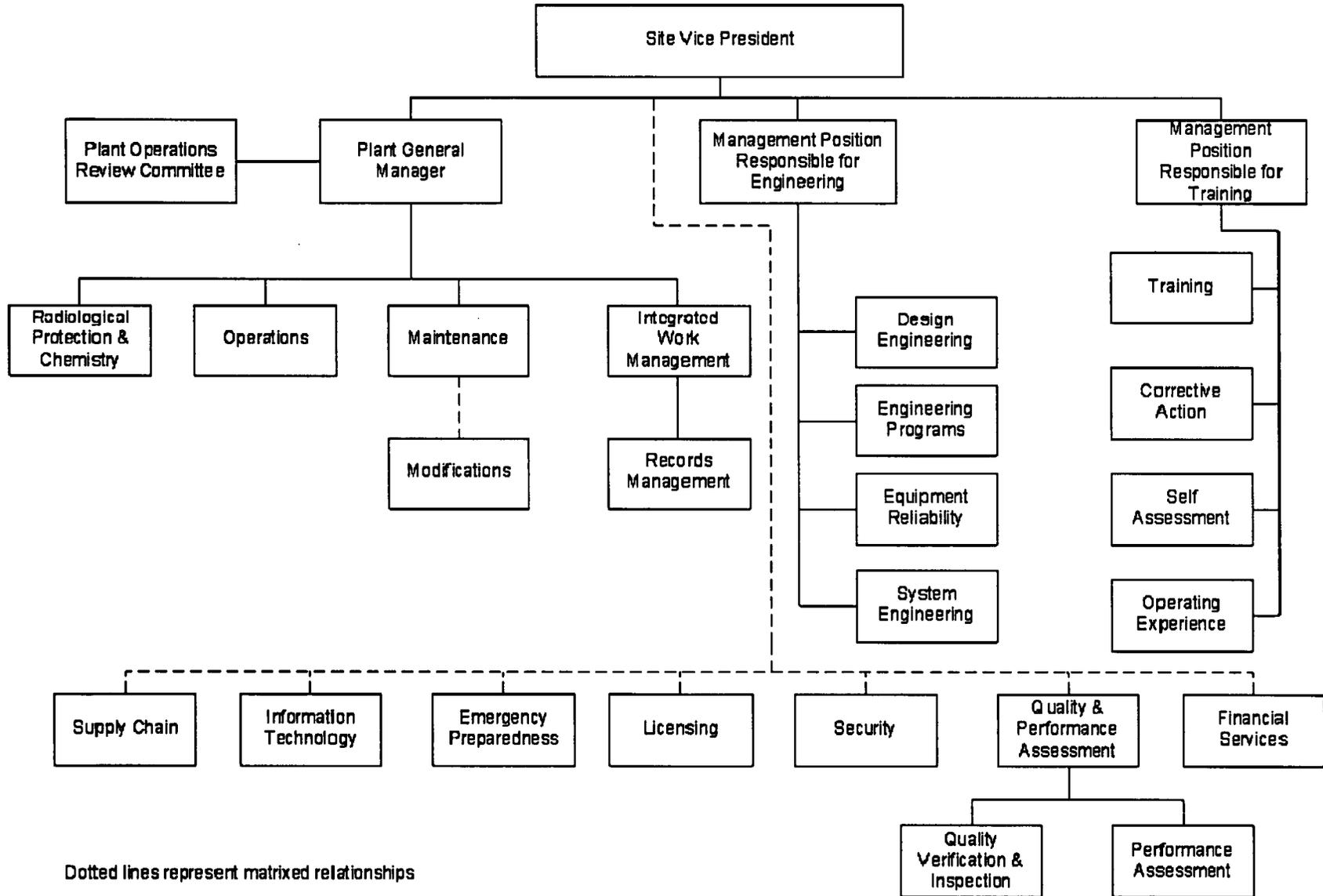
<b>Records Description</b>	<b>Retention Time</b>
Records and drawing changes reflecting unit design modifications made to systems and equipment described in the SAR.	Lifetime
Records of new and irradiated fuel inventory, fuel transfers, and assembly burnup histories.	Lifetime plus 3 years
Records of radiation exposure for all individuals entering radiation control areas.	Lifetime
Records of gaseous and liquid radioactive material released to the environs.	Lifetime
Records of transient or operational cycles for those unit components designed for a limited number of transients or cycles.	Lifetime
Records of reactor tests and experiments.	Lifetime
Records of training and qualification for current members of the unit staff.	Lifetime
Records of in-service inspections performed pursuant to the Technical Specifications.	Lifetime
Records of evaluations performed for changes made to procedures or equipment or evaluations of tests and experiments pursuant to 10CFR50.59 or 10CFR72.48.	Lifetime
Records of meetings of the PORC and the NSRB.	Lifetime
Records of offsite environmental monitoring surveys.	Lifetime
Records of unit radiation and contamination surveys.	Lifetime
Records of secondary water sampling and water quality.	Lifetime
Records of the service lives of all snubbers, including the date at which the service life commences and associated installation and maintenance records. (Does not apply to NMP Unit 1)	Lifetime
Records of QA activities required by this QATR and not otherwise listed.	Lifetime
Records and logs of unit operation covering time interval at each power level.	5 years
Records and logs of principal maintenance activities, inspections, repair, and replacement of principal items of equipment related to nuclear safety.	5 years (except ISFSI activities are Lifetime)
All Reportable Events submitted to the Commission.	5 years
Records of surveillance activities, inspections, and calibrations required by the Technical Specifications.	5 years
Records of changes made to the procedures required by Technical Specifications.	5 years
Records of radioactive shipments.	5 years
Records of sealed source and fission detector leak tests and results.	5 years
Records of annual physical inventory of all sealed source material of record.	5 years

**APPENDIX E  
ORGANIZATION RELATIONSHIPS OF KEY MANAGEMENT  
AND FUNCTIONAL GROUPS  
CORPORATE AND TECHNICAL SUPPORT**



Dotted lines represent matrixed relationships

**APPENDIX E  
ORGANIZATION RELATIONSHIPS OF KEY MANAGEMENT  
AND FUNCTIONAL GROUPS  
SITE ORGANIZATION**



**ATTACHMENT (2)**

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**QA PROGRAM COMPARISON MATRIX**

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**Calvert Cliffs Nuclear Power Plant, Inc.**

<b>Current QAP Section / (paragraph)</b>	<b>CGG QATR Section / (paragraph)</b>	<b>Change Discussion</b>	<b>R/N/I (Note 1)</b>	<b>Basis for Reduction in Commitment Meeting Appendix B</b>
<b>1.B.1, Organization and Responsibilities</b>				
1) All levels of organization ...	A.2	Note 2	N	
2) Middle level management is ...	A.2.2	Note 2	N	
3) First line craft and non-craft supervisors ...	A.3(1)	Note 2	N	
4) Adherence to procedures is ...	A.3 (4)	Verbatim	N	
5) Procedures may be deviated from ...	A.3 (5)	Note 2	N	
6) The Corporate Organization Chart of ...	A.2.1	Note 4	N	
7) The management team listed above ...	A.1(1)	Note 2	N	
8) Reporting to the Vice Presidents ...	A.2.2	Note 4	N	
9) Vendors, contractors or non-CCNPP ...	B.4 (1 and 6.4), A.3(1 and 3)	Note 2	N	
10) Two advisory groups perform ...	Appendix A	Note 2	N	
11) CCNPP's QA Program for nuclear ...	A.2.1.1	Note 2	N	
12) The Senior Vice President-Nuclear Operations	A.2.1.2	Note 2	N	
13) Quality Assurance matters that cannot ...	C.2(7)	Note 2	N	
14) The Vice-President-CCNPP is ...	A.2.2.1	Note 2	N	
15) The Plant General Manager is ...	A.2.2.2	Note 2	N	
16) The Manager-Nuclear Operations Department	Not included	Note 4	N	
17) The Manager-Nuclear Maintenance ...	Not included	Note 4	N	
18) The Manager-Integrated Work Management	Not included	Note 4	N	
19) The Manager-Nuclear Training ...	A.2.2.3	Note 2	N	
20) The Vice-President-NTS ...	Not included	Note 4	N	
21) The Manager-CCNPP-ES, is responsible ...	A.2.2.4	Note 2	N	
22) The Manager-Fleet Licensing is responsible ...	Not included	Note 4	N	
23) The Director-Fleet Fuels is responsible ...	Not included	Note 4	N	
24) The Director-Fleet PRA Services is ...	Not included	Note 4	N	
25) The Director-Fleet Policies and Procedures ...	Not included	Note 4	N	
26) The Manager-Q&PA is responsible for ...	A.2.1.4	Note 2	N	
27) 2. Ensuring that QA compliance reviews ...	Not included	Note 2. Removed details more appropriate in implementing	N	

Calvert Cliffs Nuclear Power Plant, Inc.

Current QAP Section / (paragraph)	CGG QATR Section / (paragraph)	Change Discussion	R/N/I (Note 1)	Basis for Reduction in Commitment Meeting Appendix B
		procedures.		
28) 3. Taking necessary corrective action, ...	A.4(2)	Note 2	N	
29) CCNPP has established that the Manager ...	A.7 (Reg Guide 1.8, Rev 1)	Note 2, (QAP says 6 years; Reg Guide says 8)	I	
30) CCNPP personnel who report to ...	C.2.(1)	Note 2	N	
31) The General Manager-Fleet Production Operations ...	Not included	Note 4	N	
32) The Manager-Projects is responsible to ...	Not included	Note 4	N	
33) The Manager-Supply Chain is responsible ...	Not included	Note 4	N	
34) The Manager-Security/Emergency Preparedness ...	Not included	Note 4	N	
35) The Manager-CGG-IT is responsible ...	Not included	Note 4	N	
<b>1.B.2, Quality Assurance Program</b>				
1) The QA program consists of the QA Policy, ...	A.1	Note 2	N	
2) The QA Policy identifies NRC regulatory ...	A.1	Note 2	N	
3) Nuclear Program Directives address actions ...	A.1(2)	Note 2	N	
4) Calvert Cliff's QA Program is applied to ...	A.1.3	Note 2	N	
5) Controls have been established for specifying ...	A.1.3	Note 2	N	
6) The Statement of Authority, in the ...	A.1(1)	Note 2	N	
7) The QA Policy is approved by ...	A.1(1)	Note 2	N	
8) The QA Policy has established controls for ...	A.3(2)	Note 2	N	
9) The QA Program has also established controls	A.1(3)	Note 2	N	
10) Nuclear Program Managers/Directors ensure	A.2.1.4	Note 2. Removed details more appropriate in implementing procedures.	N	
11) The Sr. VP-Nuclear Operations ensure that ...	C.2(9)	Note 2	N	
12) If a difference of opinion arises between ...	C.2(7)	Verbatim	N	
13) To ensure that important activities are ...	A.5	Note 2	N	

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<b>Current QAP Section / (paragraph)</b>	<b>CGG QATR Section / (paragraph)</b>	<b>Change Discussion</b>	<b>R/N/I (Note 1)</b>	<b>Basis for Reduction in Commitment Meeting Appendix B</b>
14) The QA Program was developed to meet ...	A.7	Note 2	N	
15) (list of regulations, Reg. Guides, and standards)	A.7	Note 2	N	
16) The QA Policy and revisions thereto are ...	A.1(5)	Note 2.	N	
17) Nuclear Program Directives are prepared ...	A.1(5)	Note 2. Removed details more appropriate in implementing procedures.	N	
18) QA Program documents ensure that ...	B.1	Note 2	N	
19) Procedures require that CCNPP shall be ...	A.2.1.4, Appendix A	Note 2	N	
20) The maintenance and repair of systems, ...	B.1	Note 2	N	
21) When necessary, non-plant Company ...	B.1	Note 2	N	
22) Controls are established in QA Program ...	B.4 and B.7	Note 2	N	
23) Equipment manufacturers and contractors ...	B.4(2)	Note 2	N	
<b>1.B.3, Design Control</b>				
1) Facility changes are controlled by ...	B.2(1)	Note 2	N	
2) Controls of facility changes, tests, and ...	B.2	Note 2. NQA-1-1994 Basic Requirement 3 and Supplement 3S-1. Removed details more appropriate in implementing procedures.	N	
3) The process for controlling facility changes ...	B.2 Appendix A, section 1.6	Note 2	N	
4) RDO's, either on contract or within CCNPP, ...	B.2, B.3	Note 2. For item 8, the QATR allows the design supervisor to review in certain cases. NQA-1-1994, Supplement 3S-1, Section 4.	N	
<b>1.B.4, Procurement Document Control</b>				
1) Controls have been established to specify ...	B.4(1)	Note 2	N	

Calvert Cliffs Nuclear Power Plant, Inc.

Current QAP Section / (paragraph)	CGG QATR Section / (paragraph)	Change Discussion	R/N/I (Note 1)	Basis for Reduction in Commitment Meeting Appendix B
2) The degree to which these controls are ...	B.4(1)	Note 2	N	
3) Qualified PWS personnel trained in ...	B.1	Note 2	N	
4) All changes made to procurement documents,	B.4(1)	Note 2	N	
5) Bids submitted to supply safety-related ...	B.4(3)	Note 2	N	
6) Personnel in Q&PA evaluate vendors ...	B.4(3)	Note 2	N	
7) Controls have been established to ensure that, before placement of a purchase order under the Nuclear Grade method ...	B.4(3)	Note 2	N	
8) Controls have been established to ensure that items or services available to general industry ...	B.4(8)	Note 2	N	
9) Procedures require that procurement ...	B.4, B.5	Note 2	N	
<b>1.B.5, Instructions, Procedures, and Drawings</b>				
1) Controls delineate the sequence of actions ...	B.14(1)	Note 2	N	
2) Controls require that:	B.14(1)	Note 2	N	
3) Controls ensure that:	B.14(1)	Note 2. Removed details more appropriate to implementing procedures.	N	
4) The Plant General Manager may designate ...	B.14(4)	Note 2	N	
5) Procedures listed in Technical Specification	B.14(5)	Note 2	N	
6) Temporary changes to procedures of ...	B.14(3)	Note 2	N	
7) Editorial corrections to procedures ...	B.14	Note 2. NQA-1-1994 Supplement 6S-1, substep 3.2	N	
8) As used in this document,:	B.14	Note 2. NQA-1-1994 Supplement 6S-1, substep 3.2	N	
<b>1.B.6, Document Control</b>				
1) Requirements have been established to ...	B.14(1)	Note 2	N	
2) Revisions to the QA Policy are controlled ...	B.14(1), A.1(6)	Note 2	N	
3) Alterations to the UFSAR are controlled by	B.14(1)	Note 2	N	
4) Alterations to the ISFSI updated SAR are ...	B.14(1)	Note 2	N	
5) Alterations to the Operating License, ...	B.14(1)	Note 2	N	

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Current QAP Section / (paragraph)	CGG QATR Section / (paragraph)	Change Discussion	R/N/I (Note 1)	Basis for Reduction in Commitment Meeting Appendix B
6) Alterations to the ISFSI Materials License, ...	B.14(1)	Note 2	N	
7) Alterations to the Emergency Response Plan	B.14(1)	Note 2	N	
8) Alterations to the Security Plan are ...	B.14(1)	Note 2	N	
9) Directives are required to:	B.14 A.1(2)	Note 2. Removed details more appropriate to implementing procedures.	N	
10) Nuclear Program Directives are prepared ...	B.14 A.1(2)	Note 2. Removed details more appropriate to implementing procedures.	N	
11) Administrative and Technical Procedures ...	B.14(1)	Note 2. Removed details more appropriate to implementing procedures.	N	
12) Administrative procedures are required to:	B.14(1)	Note 2	N	
13) During the review of each administrative ...	B.14(1)	Note 2	N	
14) Organizations that issue instructions, ...	B.14(1), B.14(2)	Note 2	N	
15) When changes to drawings or ...	B.14(2)	Note 2	N	
<b>1.B.7, Control of Purchased Material, Equipment and Services</b>				
1) Procurement and Warehouse Services, ...	B.1	Note 2	N	
2) The controls include:	B.4(3)	Note 2	N	
3) The vendor evaluation is conducted to ...	B.4(2)	Note 2	N	
4) The National Institute of Standards and ...	B.4(1)	Note 2	N	
5) Q&PA performs evaluations and audits to ...	B.4(3)	Note 2	N	
6) Since CCNPP accepts the responsibility ...	B.4	Note 2. CGG commits to using the guidance contained in GL 89-02 / EPRI NP-5652	N	
7) A survey may be performed of ...	B.4	Note 2. CGG commits to using the guidance contained in GL 89-02 / EPRI NP-5652	N	
8) Vendor controls evaluated to be satisfactory	B.4	Note 2. CGG commits to using the guidance contained in GL 89-02 / EPRI NP-5652	N	

Calvert Cliffs Nuclear Power Plant, Inc.

Current QAP Section / (paragraph)	CGG QATR Section / (paragraph)	Change Discussion	R/N/I (Note 1)	Basis for Reduction in Commitment Meeting Appendix B
9) The depth of vendor evaluation varies ...	B.4	Note 2. CGG commits to using the guidance contained in GL 89-02 / EPRI NP-5652	N	
10) Upon completion of the evaluation, ...	B.4(3)	Note 2	N	
11) An auditing organization such as NUPIC	B.4(2)	Note 2	N	
12) When required by operational ...	B.4(4)	Note 2	N	
13) Vendor surveillance and source verification	B.4(2)	Note 2	N	
14) The depth and frequency of vendor ...	B.4(2)	Note 2	N	
15) When a vendor's certificates of conformance	B.5(2)	Note 2	N	
16) Procurement and Warehouse Services is ...	B.4(5)	Note 2	N	
17) Additionally, P&WS is responsible for ...	B.4(5)	Note 2	N	
18) Standard receiving inspection of items is ...	B.4(5)	Note 2	N	
19) Special receiving inspection may be ...	B.4(5)	Note 2	N	
20) A written record of the results of the ...	B.4(5)	Note 2	N	
21) All SR and designated NSR items ...	B.4(5)	Note 2	N	
22) Non-conforming items are identified and ...	B.4, B.13	Note 2. NQA-1-1994 Supplement 15S-1	N	
23) CCNPP procurement documents require ...	B.4(1)	Note 2	N	
24) Vendor inspection records or ...	B.13(4)	Note 2	N	
25) Vendor requested deviations from ...	B.13	Note 2, NQA-1-1994 Supplement 15S-1	N	
<b>1.B.8, Identification and Control of Materials, Parts, and Components</b>				
1) Procurement and Warehouse Services and ...	B.6	Note 2	N	
2) Requirements for identification by use of ...	B.6	Note 2	N	
3) Assigned Procurement and Warehouse ...	B.6	Note 2	N	
4) CCNPP contractors and their ...	B.6	Note 2	N	
5) Identification of items important to the ...	B.6	Note 2	N	
6) SR and designated NSR items received ...	B.5	Note 2	N	
7) If an item is found to be or is made	B.6	Note 2	N	

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Current QAP Section / (paragraph)	CGG QATR Section / (paragraph)	Change Discussion	R/N/I (Note 1)	Basis for Reduction in Commitment Meeting Appendix B
discrepant				
8) Acceptance documentation is required to be	B.6	Note 2	N	
9) After completion of tests and inspections, ...	B.15	Note 2	N	
<b>1.B.9, Control of Special Processes</b>				
1) Controls have been established in writing, ...	B.11	Note 2	N	
2) CCNPP contractors and their sub-contractors	B.11	Note 2	N	
3) Procedures, equipment, and personnel ...	B.11	Note 2	N	
4) These procedures are prepared according to	B.11	Note 2	N	
5) Methods of Nondestructive Examination ...	B.11	Note 2	N	
6) Special processes are performed by ...	B.11	Note 2	N	
7) Qualification records of procedures, ...	B.11	Note 2	N	
8) The Director-Q&PA provides ...	C.2(1)	Note 2	N	
<b>1.B.10, Inspection</b>				
1) Activities that affect the quality of SR and ...	B.12(1)	Note 2	N	
2) Controls exercised during inspections ensure that:				
1.	B.12(1)	Note 2	N	
2.	B.12	Note 2	N	
3.	B.12(1)	Note 2	N	
4.	B.9(3)	Note 2	N	
5.	B.12(2)	Note 2	N	
6.	B.12(2)	Note 2	N	
7.	B.12(1)	Note 2	N	
8.	B.12(2)	Note 2. Removed details more appropriate to implementing procedures.	N	
9.	B.12(1)	Note 2	N	
10.	B.12(3)	Note 2	N	
3) Inspection procedures, instructions, and ...	B.12(2)	Note 2	N	
4) The Director-QPA is responsible for the ...	B.12(1)	Note 2	N	
5) Other inspections are conducted randomly ...	B.12(1)	Note 2	N	

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Current QAP Section / (paragraph)	CGG QATR Section / (paragraph)	Change Discussion	R/N/I (Note 1)	Basis for Reduction in Commitment Meeting Appendix B
6) In-service inspections are performed on ...	B.12(1)	Note 2	N	
7) In-service inspections and examinations on ...	B.12(1)	Note 2	N	
<b>1.B.11, Test Control</b>				
1) To demonstrate the ability of SR and ...	B.8	Note 2	N	
2) Whenever testing is required to demonstrate	B.8	Note 2	N	
3) CCNPP-Engineering Services, NOD, NMD,	B.8	Note 2	N	
4) Written test procedures are developed, ...	B.8	Note 2	N	
5) Test results are documented and evaluated; ...	B.8	Note 2	N	
6) Results of completed tests on SR and ...	B.17; Appendix A, section 1.6	Note 2	N	
7) Results of testing performed as part of ...	B.5	Note 2	N	
<b>1.B.12, Control of Measuring and Test Equipment</b>				
1) Calibration controls have been established ...	B.9	Note 2	N	
2) Calibration controls require each responsible	B.9	Note 2	N	
3) Written procedures are prepared and ...	B.9	Note 2	N	
4) Manufacturer's procedures are used for ...	B.9	Note 2	N	
5) Measuring and test equipment that require ...	B.9	Note 2	N	
6) When equipment is found out of calibration,	B.9 (subpart 5)	Note 2	N	
7) Test and measuring equipment that cannot ...	B.9 (subpart 5)	Note 2.	N	
8) The status of each item controlled under ...	B.9 (subpart 2)	Note 2	N	
9) Measuring and test equipment is controlled ...	B.9 (subpart 2)	Note 2. NQA-1-1994 Supplement 12S-1	N	
10) Measuring and test equipment is calibrated	B.9 (subpart 1)	Note 2	N	
<b>1.B.13, Handling, Storage, and Shipping</b>				
1) Appropriate and special requirements ...	B.7(1)	Note 2	N	
2) Procedures have been established to ...	B.7(1)	Note 2	N	

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Current QAP Section / (paragraph)	CGG QATR Section / (paragraph)	Change Discussion	R/N/I (Note 1)	Basis for Reduction in Commitment Meeting Appendix B
3) Special handling, preservation, storage, ...	A.5	Note 2	N	
4) Controls have been established for ...	B.7(1)	Note 2	N	
<b>1.B.14, Inspection, Test, and Operating Status</b>				
1) Controls have been established for the ...	B.10(1)	Note 2	N	
2) Procedures/instructions are prepared to ...	B.10	Note 2	N	
3) Senior shift personnel are responsible ...	B.10	Note 2. Removed detail more appropriate to implementing procedures.	N	
4) The Manager-Q&PA is responsible for ...	C.2(1)	Note 2.	N	
5) The bypassing of required inspections, ...	B.10	Note 2	N	
<b>1.B.15, Nonconforming Materials, Parts, or Components</b>				
1) Controls have been established for ...	B.13(4)	Note 2	N	
2) Issues affecting nuclear plant items are ...	B.13(4)	Note 2	N	
3) Any individual identifying an actual or ...	B.13(4)	Note 2	N	
4) Nonconforming items are controlled by ...	B.13(4)	Note 2	N	
5) Nonconformance control documents are ...	B.13(4)	Note 2	N	
6) Nonconforming items are dispositioned as ...	B.13(4)	Note 2	N	
7) Reworked, repaired, and replacement items ...	B.13(4)	Note 2	N	
8) Nonconforming items may be conditionally ...	B.13(4)	Note 2	N	
<b>1.B.16, Corrective Actions</b>				
1) Controls have been established to ensure ...	A.6(2)	Note 2	N	
2) Corrective actions are implemented by ...	A.6(2)	Note 2	N	
3) Issues identified as potentially impacting ...	Appendix A, Section 1.6	Note 2. Removed details more appropriate in implementing procedures.	N	
4) Corrective action verification is performed ...	B.13(1)	Note 2. NQA-1-1994 Basic Requirement 16	N	
5) Significant issues require a root cause ...	A.6(2)	Note 2	N	
6) Issues are periodically analyzed for the ...	A.6(2) and B.13(3)	Verbatim	N	
<b>1.B.17, Quality Assurance Records</b>				
1) Controls have been established ...	B.15(1)	Note 2	N	
2) Quality assurance records are classified ...	Appendix D	Note 2	N	

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<b>Current QAP Section / (paragraph)</b>	<b>CGG QATR Section / (paragraph)</b>	<b>Change Discussion</b>	<b>R/N/I (Note 1)</b>	<b>Basis for Reduction in Commitment Meeting Appendix B</b>
3) Lifetime records, maintained for ...	B.15	Note 2	N	
4) The following records shall be retained for ...	Appendix D	Note 2	N	
5) Non-permanent records, which show ...	B.15(1) and Appendix D	Note 2	N	
6) The following records shall be retained for ...	Appendix D	Records of reactor tests and experiments are increased to a lifetime record.	I	
7) Records of radioactive shipments ...	Appendix D	Note 2	I	
8) Procurement documents specify vendor ...	B.4(6)	Note 2	N	
9) Inspection and test records contain the ...	B.15(3)	Note 2	N	
10) Controls have been provided to ensure ...	B.15(1)	Note 2	N	
<b>1.B.18, Audits</b>				
1) Internal audits are performed by ...	C.2	Note 2	N	
2) Vendor audits are performed to evaluate ...	B.4(2)	Note 2	N	
3) Audits are performed in accordance with ...	C.2(1)	Note 2	N	
4) Reports are analyzed and documented. ...	C.2(6)	Note 2	N	
5) To ensure that CCNPP's Q&PA complies ...	C.2(9)	Note 2	N	
Table 1B-1, CCNPP Position on Industry Standards and Regulatory Guides	A.7	Notes 2 &3	N	
Attachment A-1, Bases for QA Policy Revisions	Not applicable	Note 2. Reduced level of detail.	N	
Figure 1B-1, Organization Chart	Appendix E	Note 4	N	
Addendum 1B-1, Review Functions				
Section 1, PORC	Appendix A	Note 2. PORC membership requirements, quorum and review responsibilities have been modified and are described in Appendix A, Item 1.0. The change reflects the minimum review requirements of ANSI N18.7-1976/ANS-3.2. This will allow reducing the number of members from at	N	

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Current QAP Section / (paragraph)	CGG QATR Section / (paragraph)	Change Discussion	R/N/I (Note 1)	Basis for Reduction in Commitment Meeting Appendix B
		<p>least 7 members to a minimum of 5, with corresponding changes in the quorum and use of alternates. Although this is a change in the number of members previously specified in the QA Program, it does not reduce the membership below that described in the committed standard.</p> <p>The requirements for a quorum will be dependent of the membership determined to be necessary for the facility at any point in operations. For any PORC decision affecting site-wide issues, the Chairperson shall ensure appropriate representation.</p> <p>Qualification requirements are in Appendix A. The current PORC members are required to have a minimum of eight years power plant experience of which a minimum of three years shall be nuclear power experience. The Chairmen is required to have a minimum of 10 years power plant experience of which a minimum of three years shall be nuclear power experience. The QATR requires PORC members to meet the qualification requirements of</p>		

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<b>Current QAP Section / (paragraph)</b>	<b>CGG QATR Section / (paragraph)</b>	<b>Change Discussion</b>	<b>R/N/I (Note 1)</b>	<b>Basis for Reduction in Commitment Meeting Appendix B</b>
		ANS-3.1-1993, subsection 4.7, as clarified in NRC Regulatory Guide 1.8, Revision 3, and the QATR. This is a standard previously endorsed by the NRC and is therefore not a reduction in commitment.		
Section 2, Qualified Reviewers	B.14	Note 2. Specific requirements for the station-qualified reviewers have been removed and are contained in implementing procedures as described in Section B.14, Document Control. The QA program still requires qualified personnel to independently review procedures and procedure changes as part of the approval process.	N	
Section 3, NSRB	Appendix A	Note 2. NSRB requirements have been modified and are described in Appendix A, Item 2.0. The NSRB is no longer required to duplicate the reviews performed by PORC. This is consistent with the requirements of ANSI N18.7-1976/ANS-3.2 that at least one review group will be performing the review prior to NRC submittal. This meets the intent of Reg. Guide 1.33, Regulatory Position C.3, which states that these changes "should be reviewed by the independent review body prior to their submittal to the	N	

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<b>Current QAP Section / (paragraph)</b>	<b>CGG QATR Section / (paragraph)</b>	<b>Change Discussion</b>	<b>R/N/I (Note 1)</b>	<b>Basis for Reduction in Commitment Meeting Appendix B</b>
		<p>Commission for approval.”</p> <p>Qualification requirements are in Appendix A. Currently the Chairman and all members (primary and alternate) are required to have an academic degree in engineering or a physical science, or the equivalent, and in addition have a minimum of five years technical experience. NSRB members will meet the qualification requirements of ANS-3.1-1993, subsection 4.7, as clarified in NRC Regulatory Guide 1.8, Revision 3, and the QATR. This is a standard previously endorsed by the NRC and is therefore not a reduction in commitment.</p>		

**Notes:**

1. R = Reduction in Commitment  
N = Not a Reduction in Commitment  
I = Increase in Commitment
2. Wording in the CGG QATR establishes equivalent requirements for commitments. Any wording difference is the result of format needs associated with changing to Standard Review Plan 17.3 format, and to reflect a consistent format and level of detail for CGG fleet operations.
3. As described in Section A.7.3 (7.a) of the CGG QATR, there is no longer a commitment to compliance with the requirements of ANSI N-18.7/ANS-3.2 as NQA-1-1994 Part 1 contains equivalent quality assurance requirements. Other “administrative controls” elements of ANSI N-18.7/ANS-3.2 have been included in the CGG QATR and the appropriate sections of the CGG QATR are referenced in this Table.
4. The CGG QATR does not assign responsibilities beyond those listed in Section A.2 and A.3. The responsibilities listed in Revision 59 of the CCNPP QA Policy are documented in lower tier documents.

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<b>Current QATR Section / (Paragraph)</b>	<b>CGG QATR Section / (Paragraph)</b>	<b>Change Discussion</b>	<b>R/N/I (Note 1)</b>	<b>Basis for Reduction in Commitment Meeting Appendix B</b>
Introduction	N/A	Level of detail not required in the QATR. This section contained explanations for the use of Technical Specification references related to the transition to ITS type Technical Specifications. It also provided an explanation for the use of generic position titles, and organization position and title changes associated with a transfer of the NRC license. This information is no longer applicable to the CGG QATR.	N	
B.0	Policy, A.1	Note 2	N	
B.1.1	Policy, A.1	Note 2	N	
B.1.2.1	A.2, A.3, A.4	Note 2. The CGG QATR does not assign responsibilities beyond those listed in Section A.2. The station specific responsibilities, beyond those listed in the current NMPNS QATR, are documented in unit Safety Analysis Reports and in lower tier documents.	N	
B.1.2.1.1	A.2, A.3, A.4	Note 2. The CGG QATR does not assign responsibilities beyond those listed in Section A.2. The station specific responsibilities, beyond those listed in the current NMPNS QATR, are documented in unit Safety Analysis Reports and in lower tier documents.	N	
B.1.2.1.2	B.4	Note 2	N	
B.2.1	A.1	Notes 2 & 4	N	
B.2.2.1	A.2	Note 2.	N	
B.2.2.2	A.1	Note 2. Report Format uses SRP 17.3 as approved for the NMC QATR on 3/24/05	N	
B.2.2.3	A.1	Note 2.	N	
B.2.2.4	A.1, A.3	Note 2	N	
B.2.2.5	A.3, A.5	Note 2	N	
B.2.2.6	A.3, A.5	Note 2.	N	
B.2.2.7	A.1, A.2	Notes 2 & 4	N	
B.2.2.8	A.1	Note 2	N	
B.2.2.9	A.1, A.3	Note 2	N	
B.2.2.10	A.7	Note 2	N	
B.2.2.11	A.1	Note 2	N	
B.2.2.12	B.1	Note 2	N	

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Current QATR Section / (Paragraph)	CGG QATR Section / (Paragraph)	Change Discussion	R/N/I (Note 1)	Basis for Reduction in Commitment Meeting Appendix B
B.2.2.13	B.17	Note 2. QA program elements associated with computer programs used in safety-related design and Station operation are appropriately applied in accordance with NQA-1, 1994, Part 1.	N	
B.2.2.14	A.5	Note 2.	N	
B.2.2.15	A.1, C, Appendix A	Note 2.	N	
B.2.2.16	Appendix A, Item 2.0	<p>Note 2. NSRB requirements have been modified and are described in Appendix A, Item 2.0. The NSRB is no longer required to duplicate the reviews performed by PORC. This is consistent with the requirements of ANSI N18.7-1976/ANS-3.2 that at least one review group will be performing the review prior to NRC submittal. This meets the intent of Reg. Guide 1.33, Regulatory Position C.3, which states that these changes “should be reviewed by the independent review body prior to their submittal to the Commission for approval.”</p> <p>Qualification requirements are in Appendix A. The current NSRB members meet the qualification requirements of Section 13.4.2.2 of the Unit 2 USAR. NSRB members will meet the qualification requirements of ANS-3.1-1993, subsection 4.7, as clarified in NRC Regulatory Guide 1.8, Revision 3, and the QATR. This is a standard previously endorsed by the NRC and is therefore not a reduction in commitment.</p>	N	
B.2.2.17	Appendix A, Section 1.0	Note 2. SORC/PORC membership requirements, quorum and review responsibilities have been modified and are described in Appendix A, Item 1.0. The change reflects the minimum review requirements of ANSI N18.7-1976/ANS-3.2. This will allow reducing the number of members from the current 6 members to a minimum of 5, with corresponding changes in the quorum and use of alternates. Although this is a change in the number of members previously specified in the QA Program, it does not reduce the membership below that described in the committed standard.	N	

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Current QATR Section / (Paragraph)	CGG QATR Section / (Paragraph)	Change Discussion	R/N/I (Note 1)	Basis for Reduction in Commitment Meeting Appendix B
		<p>The requirements for a quorum will be dependent of the membership determined to be necessary for the facility at any point in operations. For any PORC decision affecting site-wide issues, the Chairperson shall ensure appropriate representation.</p> <p>Qualification requirements are in Appendix A. PORC members will meet the qualification requirements of ANS-3.1-1993, subsection 4.7, as clarified in NRC Regulatory Guide 1.8, Revision 3, and the QATR. This is a standard previously endorsed by the NRC and is therefore not a reduction in commitment.</p>		
B.2.2.18	Appendix A, Item 3.0	<p>Note 2. The Independent Safety Evaluation Group (ISEG) commitment will be relocated from the Quality Assurance Program Topical Report to the Updated Safety Analysis Report. A statement is included in QATR Appendix A, <i>Review Functions of the PORC, NSRB, and ISEG</i>, that the ISEG function, as applicable, will be described in the facility's safety analysis report. These relocations are consistent with the provisions approved by the NRC staff in <u>Safety Evaluation Report "Entergy Operations, Inc, Quality Assurance Program Consolidation,"</u> dated November 6, 1998</p>	N	
B.2.2.19	A.6	Note 2.	N	
B.3.1	B.2, B.3	Note 2	N	
B.3.2.1	A.2	Note 2	N	
B.3.2.2	B.2	Note 2	N	
B.3.2.3	B.17	<p>Note 2. QA program elements associated with computer programs used in safety-related design and Station operation are appropriately applied in accordance with NQA-1, 1994, Part 1.</p>	N	
B.3.2.4	B.2	Note 2	N	
B.3.2.5	B.2	Note 2	N	
B.3.2.6	B.2	Note 2	N	

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Current QATR Section / (Paragraph)	CGG QATR Section / (Paragraph)	Change Discussion	R/N/I (Note 1)	Basis for Reduction in Commitment Meeting Appendix B
B.3.2.7	B.3	Note 2	N	
B.3.2.8	C.2	Note 2	N	
B.3.2.9	B.3	Note 2	N	
B.3.2.10	B.3	Note 2	N	
B.3.2.11	B.3	Note 2	N	
B.3.2.12	B.3	Note 2	N	
B.3.2.13	B.2	Note 2	N	
B.3.2.14	B.2	Note 2	N	
B.3.2.15	NA	Note 4	N	
B.4.1	B.4, B.5	Note 2	N	
B.4.2.1	A.2	Note 2	N	
B.4.2.2	B.4	Note 2	N	
B.4.2.3	NA	Level of detail not required in QATR. This paragraph provided information on specific personnel involved with bid evaluations.	N	
B.4.2.4	B.4	Note 2	N	
B.4.2.5	B.4	Note 2	N	
B.4.2.6	B.4	Note 2	N	
B.4.2.7	B.4	Note 2	N	
B.4.2.8	B.14	Note 2	N	
B.4.2.9	NA	Note 4	N	
B.5.1	B.14	Note 2	N	
B.5.2.1	A.2	Note 2	N	
B.5.2.2	B.14	Note 2	N	
B.5.2.3	A.1, A.3	Note 2	N	
B.5.2.4	B.14	Note 2	N	
B.5.2.5	NA	Note 4	N	
B.5.2.6	B.14	Note 2	N	
B.5.2.7	B.14	Note 2	N	
B.5.2.8	B.14	Note 2	N	
B.5.2.9	B.14	Note 2. Specific requirements for the station-qualified reviewers have been removed and are contained in implementing procedures as described in Section B.14,	N	

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Current QATR Section / (Paragraph)	CGG QATR Section / (Paragraph)	Change Discussion	R/N/I (Note 1)	Basis for Reduction in Commitment Meeting Appendix B
		Document Control. The QA program still requires qualified personnel to independently review procedures and procedure changes as part of the approval process.		
B.6.1	B.14	Note 2	N	
B.6.2.1	A.2	Note 2	N	
B.6.2.2	B.14	Note 2	N	
B.6.2.3	B.14	Note 2	N	
B.6.2.4	B.14	Note 2	N	
B.6.2.5	B.14	Note 2	N	
B.6.2.6	B.14	Note 2	N	
B.7.1	B.4, B.5	Note 2	N	
B.7.2.1	A.2	Note 2	N	
B.7.2.2	B.4	Note 2	N	
B.7.2.3	B.4, B.5	Note 2	N	
B.7.2.4	B.5	Note 2	N	
B.7.2.5	B.4, B.5	Note 2	N	
B.7.2.6	B.4	Note 2	N	
B.7.2.7	B.5	Note 2	N	
B.7.2.8	B.5	Note 2	N	
B.7.2.9	B.4	Note 2	N	
B.7.2.10	NA	Note 4	N	
B.8.1	B.6	Note 2	N	
B.8.2.1	A.2	Note 2	N	
B.8.2.2	B.6	Note 2	N	
B.8.2.3	B.6	Note 2	N	
B.8.2.4	B.6	Note 2	N	
B.9.1	B.11	Note 2	N	
B.9.2.1	A.2	Note 2	N	
B.9.2.2	B.11	Note 2	N	
B.9.2.3	B.11	Note 2	N	
B.9.2.4	B.11	Note 2	N	

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<b>Current QATR Section / (Paragraph)</b>	<b>CGG QATR Section / (Paragraph)</b>	<b>Change Discussion</b>	<b>R/N/I (Note 1)</b>	<b>Basis for Reduction in Commitment Meeting Appendix B</b>
B.9.2.5	B.11	Note 2	N	
B.9.2.6	B.11	Note 2	N	
B.9.2.7	B.15, Appendix D	Note 2	N	
B.9.2.8	C.2	Note 2	N	
B.9.2.9	B.15, Appendix D	Note 2	N	
B.10.1	B.12	Note 2	N	
B.10.2.1	A.2	Note 2	N	
B.10.2.2	B.12	Note 2	N	
B.10.2.3	A.5	Note 2	N	
B.10.2.4	B.12	Note 2	N	
B.10.2.5	B.12	Note 2	N	
B.10.2.6	B.12	Note 2	N	
B.10.2.7	B.12	Note 2	N	
B.10.2.8	B.15, Appendix D	Note 2	N	
B.10.2.9	NA	Note 4	N	
B.11.1	B.8	Note 2	N	
B.11.2.1	A.2	Note 2	N	
B.11.2.2	B.8	Note 2	N	
B.11.2.3	B.8	Note 2	N	
B.11.2.4	B.8, C.2	Note 2	N	
B.11.2.5	B.15, Appendix D	Note 2	N	
B.11.2.6	NA	Note 4	N	
B.12.1	B.9	Note 2	N	
B.12.2.1	A.2	Note 2	N	
B.12.2.2	B.9	Note 2	N	
B.12.2.3	B.9	Note 2	N	
B.12.2.4	B.9	Note 2	N	
B.12.2.5	B.9	Note 2	N	

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Current QATR Section / (Paragraph)	CGG QATR Section / (Paragraph)	Change Discussion	R/N/I (Note 1)	Basis for Reduction in Commitment Meeting Appendix B
B.12.2.6	B.9	Note 2	N	
B.12.2.7	B.9	Note 2	N	
B.12.2.8	B.9	Note 2	N	
B.12.2.9	NA	Note 4	N	
B.13.1	B.7	Note 2	N	
B.13.2.1	A.2	Note 2	N	
B.13.2.2	B.7	Note 2	N	
B.14.1	B.10	Note 2	N	
B.14.2.1	A.2	Note 2	N	
B.14.2.2	B.10	Note 2	N	
B.14.2.3	B.10	Note 2	N	
B.14.2.4	B.10	Note 2	N	
B.14.2.5	B.10	Note 2	N	
B.14.2.6	B.13	Note 2	N	
B.14.2.7	NA	Note 4	N	
B.15.1	B.13	Note 2	N	
B.15.2.1	A.2	Note 2	N	
B.15.2.2	B.13	Note 2	N	
B.15.2.3	B.13	Note 2	N	
B.15.2.4	B.13	Note 2	N	
B.15.2.5	B.13	Note 2	N	
B.15.2.6	B.13	Note 2	N	
B.15.2.7	C.2	Note 2	N	
B.15.2.8	B.13	Note 2	N	
B.15.2.9	B.13	Note 2	N	
B.15.2.10	B.13	Note 2	N	
B.15.2.11	B.13	Note 2	N	
B.15.2.12	B.13	Note 2	N	
B.15.2.13	B.13	Note 2	N	
B.15.2.14	B.13	Note 2	N	
B.15.2.15	NA	Note 4	N	

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Current QATR Section / (Paragraph)	CGG QATR Section / (Paragraph)	Change Discussion	R/N/I (Note 1)	Basis for Reduction in Commitment Meeting Appendix B
B.16.1	A.6	Note 2	N	
B.16.2.1	A.2	Note 2	N	
B.16.2.2	B.13	Note 2	N	
B.16.2.3	B.13	Note 2	N	
B.16.2.4	B.13	Note 2	N	
B.16.2.5	NA	Note 4	N	
B.17.1	B.15	Note 2	N	
B.17.2.1	A.2	Note 2	N	
B.17.2.2	B.15, Appendix D	Note 2	N	
B.17.2.3	B.15	Note 2	N	
B.17.2.4	B.15	Note 2	N	
B.17.2.5	B.15	Note 2	N	
B.17.2.6	B.15	Note 2	N	
B.17.2.7	B.15	Note 2	N	
B.17.2.8	B.15	Note 2	N	
B.18.1	C.2	Note 2	N	
B.18.2.1	A.2	Note 2	N	
B.18.2.2	C.2	Note 2	N	
B.18.2.3	C.2	Note 2. Adopted Ginna policy of 90 day grace period.	N	
B.18.2.4	Appendix A, Item 2.0	Note 2	N	
B.18.2.5	C.2	Note 2	N	
B.18.2.6	C.2	Note 2	N	
B.18.2.7	C.2	Note 2	N	
B.18.2.8	C.2	Note 2. Entergy SER for Lead Auditor Qualification	N	
B.18.2.9	C.2	Note 2	N	
B.18.2.10	C.2	Note 2	N	
B.18.2.11	C.2	Note 2	N	
B.18.2.12	C.2	Note 2 Adopted Ginna's and Calvert Cliffs' policies for biennial audits of the Fire Protection Program.	R	In lieu of the 12, 24 and 36 month fire protection and loss prevention audits, CGG will perform a biennial audit of the facility fire protection program

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Current QATR Section / (Paragraph)	CGG QATR Section / (Paragraph)	Change Discussion	R/N/I (Note 1)	Basis for Reduction in Commitment Meeting Appendix B
				and implementing procedures that combines the scope of the three audits into one. The biennial requirement includes a fire protection equipment and program implementation inspection and audit utilizing either a qualified offsite licensed fire protection engineer or an outside qualified fire protection consultant. The NRC approved the biennial audit frequency for Ginna in a 10CFR50.54 Quality Assurance Program Change Review date March 22, 1995.
Table B.1	NA	Level of Detail and references not required in the QATR. This table provided a matrix for NMP department responsibility for procedures and directives associated with the NMP QA program. This information is captured in site implementing procedures and is not required in the QATR.	N	
Table B-2, 1	A.7.1	Note 2.	N	
Table B-2, 2.a	A.7.3 (4.a)	Note 3	N	
Table B-2, 2.b	A.1	Note 3	N	
Table B-2, 2.c	A.5	Note 3	N	
Table B-2, 2.d	C.2	Note 3	N	
Table B-2, 2.e	A.7.3 (7.b)	Note 3	N	
Table B-2, 2.f	NA	The explanation of the control of working hours noted that NMPNS complies with those described in applicable sections of the NMP Unit 1 and 2 SARs and related Technical Specification. This remains the case and is not a level of detail required in the QATR.	N	
Table B-2, 2.g	B.14	Note 3	N	
Table B-2, 2.h	A.7.3(6.e), (14), (15) and (12)	Note 3	N	
Table B-2, 2.i	B.10	Note 3	N	

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Current QATR Section / (Paragraph)	CGG QATR Section / (Paragraph)	Change Discussion	R/N/I (Note 1)	Basis for Reduction in Commitment Meeting Appendix B
Table B-2, 2.j	NA	The explanation of procedures associated with features and barriers for control of site and vital barriers was addressed in the Site Security Plan. This remains the case and is not a level of detail required in the QATR.	N	
Table B-2, 2.k	A.7.3 (9)	Note 3	N	
Table B-2, 2.l	B.4	Note 3	N	
Table B-2, 2.m	B.7(2)	Note 3	N	
Table B-2, 2.n	B.14	Note 3	N	
Table B-2, 2.o	A.7.3 (6.a) & (6.e)	Note 3	N	
Table B-2, 2.p	B.14	Note 3	N	
Table B-2, 2.q	B.14	Note 3	N	
Table B-2, 3.a	A.5 (1)	Note 2	N	
Table B-2, 3.b	A.5.(3)	Note 2	N	
Table B-2, 3.c	A.5.(6)	NMPNS is adopting an approved NMC exception that in lieu of the requalification requirements of NQA-1-1994 Supplement 2S-3, Section 4.2, the requirement that prospective Lead Auditors have participated in a minimum of five (5) audits in the previous three (3) years is replaced by the following: "The prospective lead auditor shall demonstrate his/her ability to properly implement the independent assessment (audit) process, as implemented by CGG according to section C.2 of this QATR, to effectively lead an assessment team, and to effectively organize and report results, including participation in at least one independent assessment or audit within the year preceding the date of qualification."	N	This alternative is consistent with the provisions approved by the NRC in Safety Evaluation Report by the Office of Nuclear Reactor Regulation, "Change to the Quality Assurance Program, Quality Assurance Program Consolidation," dated March 24, 2005 for Nuclear Management Company.
Table B-2, 3.d	B.4	Note 2	N	
Table B-2, 3.e	B.4	Note 2	N	
Table B-2, 3.f	B.15	Note 2	N	
Table B-2, 4.a	A.7.3 (15)	Note 2	N	
Table B-2, 4.b	A.7.3 (9)	Note 2	N	
Table B-2, 4.c	A.7.3 (14)	Note 2	N	
Table B-2, 4.d	A.7.3 (10)	Note 2	N	

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Current QATR Section / (Paragraph)	CGG QATR Section / (Paragraph)	Change Discussion	R/N/I (Note 1)	Basis for Reduction in Commitment Meeting Appendix B
Table B-2, 4.e	NA	The QA requirements for subsurface investigation referred to the applicable sections of the NMP Unit 1 and 2 SARs. This remains the case and is not a level of detail required in the QATR.	N	
Table B-2, 5.a	A.7.3 (9)	Note 2	N	
Table B-2, 5.b	A.7.3 (9)	Note 2	N	
Table B-2, 6 (a-e)	A.7.3 (6)	Note 2	N	
Table B-2, 7	A.7.3(6)	Notes 2 &3	N	
Table B-2, 8.a	A.7.3 (4.a)	Note 2	N	
Table B-2, 8.b	A.7.3 (4.d)	Note 2	N	
Table B-2, 8.c	A.7.3 (4.e)	Note 2	N	
Table B-2, 8.d	A.7.3 (4.b), A.5	Note 2	N	
Table B-2, 9 (a-c)	A.7.3 (9)	Note 2	N	
Table B-2, 10.	A.7.3 (14)	Note 2	N	
Table B-2, 11	A.7.3 (19)	Note 2.	N	

NOTES:

1. R = Reduction in Commitment  
N = Not a Reduction in Commitment  
I = Increase in Commitment
2. Wording in the CGG QATR establishes equivalent requirements for commitments. Any wording difference is the result of format needs associated with changing to Standard Review Plan 17.3 format, and to reflect a consistent format and level of detail for CGG fleet operations.
3. As described in Section A.7.3 (7.a) of the CGG QATR, there is no longer a commitment to compliance with the requirements of ANSI N-18.7/ANS-3.2 as NQA-1-1994 Part 1 contains equivalent quality assurance requirements. Other “administrative controls” elements of ANSI N-18.7/ANS-3.2 have been included in the CGG QATR and the appropriate sections of the CGG QATR are referenced in this Table.
4. Appropriate elements of this QATR are applied to the Fire Protection Program. Commitments to apply specific QA program elements to the Fire Protection Program are contained in the applicable unit’s Safety Analysis Report (or will be incorporated as part of the implementation of this program following NRC approval.) These relocations are consistent with the provisions approved by the NRC staff in Safety Evaluation Report “Entergy Operations, Inc, Quality Assurance Program Consolidation,” dated November 6, 1998.

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Current QAPSO Section / (Paragraph)	CGG QATR Section / (Paragraph)	Change Discussion	R/N/I (Note 1)	Basis for Reduction in Commitment Meeting Appendix B
17.1.1(1)	A.1(1)	Note 2	N	
17.1.1(2)	A.1(2,3)	Note 2	N	
17.1.1(3)	A.1(3)	Note 2	N	
17.1.1(4)	A.1(3)	Note 2	N	
17.1.1(5)	A.1(2-5)	Note 2	N	
17.1.1(6)	Appendix C	ASME NQA-1-1994 Part 1 definitions supplemented by ANSI N18.7-1976/ANS-3.2 definitions apply	N	
17.1.2 Organization	A.2	The key organization positions are described in Section A.2 of the QATR using both specific and generic titles with position functions for responsible individuals consistent with 50.54(a)(3)(iii), which allows: "The use of generic organizational position titles that clearly denote the position function, supplemented as necessary by descriptive text, rather than specific titles." Organization charts in QATR Appendix E show additional functional relationships, authorities, and responsibilities consistent with 50.54(a)(3)(iv), which allows: "The use of generic organizational charts to indicate functional relationships, authorities, and responsibilities, or, alternately, the use of descriptive text."	N	
17.1.2 REVIEW AND AUDIT ...	Appendix A and C.2	Note 2, This was an introductory level of detail	N	
17.1.2 PORC ...	Appendix A	<p>PORC membership requirements, quorum and review responsibilities have been modified and are described in Appendix A, Item 1.0. The change reflects the minimum review requirements of ANSI N18.7-1976/ANS-3.2. The maximum of 9 members is deleted, with corresponding changes in the quorum and use of alternates. Although this is a change in the maximum number of members previously specified in the QA Program, it does not reduce the membership below that described in the committed standard.</p> <p>The requirements for a quorum will be dependent of the membership determined to be necessary for the facility at any point in operations. For any PORC decision affecting site-wide issues, the Chairperson shall ensure appropriate representation.</p>	N	

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Current QAPSO Section / (Paragraph)	CGG QATR Section / (Paragraph)	Change Discussion	R/N/I (Note 1)	Basis for Reduction in Commitment Meeting Appendix B
		Qualification requirements are in Appendix A. The current PORC members meet the qualification requirements of ANSI N18.7-1971. PORC members will meet the qualification requirements of ANS-3.1-1993, subsection 4.7, as clarified in NRC Regulatory Guide 1.8, Revision 3, and the QATR. This is a standard previously endorsed by the NRC and is therefore not a reduction in commitment.		
17.1.2 NSRB ...	Appendix A	<p>NSRB requirements have been modified and are described in Appendix A, Item 2.0. The NSRB is no longer required to duplicate the reviews performed by PORC. This is consistent with the requirements of ANSI N18.7-1976/ANS-3.2 that at least one review group will be performing the review prior to NRC submittal. This meets the intent of Reg. Guide 1.33, Regulatory Position C.3, which states that these changes "should be reviewed by the independent review body prior to their submittal to the Commission for approval."</p> <p>Qualification requirements are in Appendix A. The current NSRB members meet the qualification requirements of ANSI/ANS-3.1-1987, subsection 4.7, with an exception to the years of experience. NSRB members will meet the qualification requirements of ANS-3.1-1993, subsection 4.7, as clarified in NRC Regulatory Guide 1.8, Revision 3, and the QATR. This is a standard previously endorsed by the NRC and is therefore not a reduction in commitment.</p>	N	
17.1.2 DELEG. OF WORK ...	A.3(1,3)	Note 2	N	
17.1.3(1)	A.3(1)	Note 2	N	
17.1.3(2)	A.1(1,2)	Note 2	N	
17.1.3(3)	A.3(2)	Note 2	N	
17.1.3(4)	A.3(3)	Note 2	N	
17.1.4(1)	A.4(1)	Note 2	N	
17.1.4(2)	A.4(2)	Note 2	N	
17.1.5	A.5	Note 2	N	
17.1.6	A.6(1-2)	Note 2	N	
N/A	A.6(2)	A discussion on the Employee Concerns Program was added to	I	

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Current QAPSO Section / (Paragraph)	CGG QATR Section / (Paragraph)	Change Discussion	R/N/I (Note 1)	Basis for Reduction in Commitment Meeting Appendix B
		the QA program		
17.1.7(1)	A.7(1)	Note 2	N	
17.1.7(2)	A.7	Note 2, Regulatory Commitments are discussed in detail under Table 17.1.7-1	N	
Table 17.1.1-1	CGG QA Policy	Note 2	N	
Table 17.1.1-2	Appendix C	CGG commits to the definition of terms in NQA-1-1994 in addition to those definitions added to the QATR from ANSI N18.7-1976/ANS-3.2.	N	
Table 17.1.7-1 RG 1.8 Rev. 1	A.7.3, Item 1	The commitment is in Technical Specifications, subsection 5.3.1	N	
Table 17.1.7-1 RG 1.26 Rev. 3	A.7.3, Item 3	The specific details are not retained since the sites use different wording. The UFSAR and license documents provide the necessary information.	N	
Table 17.1.7-1 RG 1.28 Rev. 2	A.7.3, Item 4	The commitment was updated to Reg. Guide 1.28, Rev. 3, endorsing NQA-1-1983. Also updated the commitment to NQA-1-1994 based on the NRC SER for Exelon's QA program dated 12/24/02.	N	
Table 17.1.7-1 RG 1.29 Rev. 3	A.7.3, Item 5	Note 2, The site-specific commitment will be described in the UFSAR.	N	
Table 17.1.7-1 RG 1.30 Rev. 0	A.7.3, Item 6	Note 2, Adopted an exception to ANSI N45.2.4-1972 approved in the NRC SER for Entergy dated 11/6/1998.	N	
Table 17.1.7-1 RG 1.33 Rev. 0	A.7.3, Item 7	Ginna is committing to a QA Standard approved by the NRC that is more recent than the current QA standard.  NQA-1-1994 Part I contains quality assurance requirements equivalent to those of ANSI N18.7-1976/ANS-3.2, and CGG has included in this QATR the remaining "administrative controls" elements from ANSI N18.7-1976/ANS-3.2. Therefore, CGG does not commit to compliance with the requirements of ANSI N-18.7-1976/ANS-3.2.	N	
Table 17.1.7-1 RG 1.36 Rev. 0	A.7.3, Item 8	Note 2, The site-specific commitment will be described in the UFSAR.	N	
Table 17.1.7-1 RG 1.37 Rev. 0	A.7.3, Item 9	Note 2, The site-specific commitment will be described in the UFSAR.	N	
Table 17.1.7-1 RG 1.38 Rev. 2	A.7.3, Item 10	Note 2, The site-specific commitment will be described in the UFSAR.	N	

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Current QAPSO Section / (Paragraph)	CGG QATR Section / (Paragraph)	Change Discussion	R/N/I (Note 1)	Basis for Reduction in Commitment Meeting Appendix B
Table 17.1.7-1 RG 1.39 Rev. 2	A.7.3, Item 11	CGG is adopting ASME NQA-1-1994 Subpart 2.3 consistent with the provisions approved in the NRC SER for Dominion Nuclear Connecticut, Inc. and Virginia Electric and Power Company, dated September 9, 2005	N	
Table 17.1.7-1 RG 1.54 Rev. 0	A.7.3, Item 12	Note 2, The site-specific commitment will be described in the UFSAR.	N	
Table 17.1.7-1 RG 1.58 Rev. 1	A.7.3, Item 4	The commitment to RG 1.28 Rev. 3 and NQA-1-1994 Part 1 replaces the commitment to RG 1.58 Rev. 1.	N	
Table 17.1.7-1 RG 1.64 Rev. 2	A.7.3, Item 4	The commitment to RG 1.28 Rev. 3 and NQA-1-1994 Part 1 replaces the commitment to RG 1.64 Rev. 2	N	
Table 17.1.7-1 RG 1.74 Rev. 0	A.7.3, Item 4	The commitment to RG 1.28 Rev. 3 and NQA-1-1994 Part 1 replaces the commitment to RG 1.74 Rev. 0	N	
Table 17.1.7-1 RG 1.88 Rev. 2	A.7.3, Item 4	The commitment to RG 1.28 Rev. 3 and NQA-1-1994 Part 1 replaces the commitment to RG 1.88 Rev. 2.	N	
Table 17.1.7-1 RG 1.94 Rev. 1	A.7.3, Item 14	Note 2, The site-specific commitment will be described in the UFSAR.	N	
Table 17.1.7-1 RG 1.116 Rev. 0	A.7.3, Item 15	CGG is adopting ASME NQA-1-1994 Subpart 2.8 consistent with the provisions approved in the NRC SER for Dominion Nuclear Connecticut, Inc. and Virginia Electric and Power Company, dated September 9, 2005	N	
Table 17.1.7-1 RG 1.123 Rev. 1	A.7.3, Item 4	The commitment to RG 1.28 Rev. 3 and NQA-1-1994 Part 1 replaces the commitment to RG 1.123 Rev. 1	N	
Table 17.1.7-1 RG 1.143 Rev. 1	A.7.3, Item 16	Note 2, The site-specific commitment will be described in the UFSAR.	N	
Table 17.1.7-1 RG 1.144 Rev. 1	A.7.3, Item 4	The commitment to RG 1.28 Rev. 3 and NQA-1-1994 Part 1 replaces the commitment to RG 1.144 Rev. 1.	N	
Table 17.1.7-1 RG 1.146 Rev. 0	A.7.3, Item 4	The commitment to RG 1.28 Rev. 3 and NQA-1-1994 Part 1 replaces the commitment to RG 1.146 Rev. 0.	N	
Table 17.1.7-1 RG 1.152 Rev. 0	A.7.3, Item 17	Note 2	N	
Table 17.1.7-1 RG 4.15 Rev. 1	A.7.3, Item 20	Note 2	N	
Table 17.1.7-1 RG 7.10 Rev. 1	A.7.3, Item 21	Note 2	N	
Table 17.1.7-1 10CFR21	A.7.1, Item 4	Note 2	N	

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Current QAPSO Section / (Paragraph)	CGG QATR Section / (Paragraph)	Change Discussion	R/N/I (Note 1)	Basis for Reduction in Commitment Meeting Appendix B
Table 17.1.7-1 10CFR50, Appendix A	A.7.3, Item 5	Note 2, SRP 17.3 addresses 10CFR50, Appendix A, Criterion 1 only. Ginna conforms to Criterion 1. For existing systems, Ginna's UFSAR addresses the criteria applied.	N	
Table 17.1.7-1 10CFR50, Appendix B	A.7.1, Item 1	Note 2	N	
Table 17.1.7-1 10CFR50.55a	A.7.1, Item 6	Note 2	N	
Table 17.1.7-1 10CFR50.55(e)	N/A	Applies to plants in the construction phase.	N	
Table 17.1.7-1 10CFR55	A.7.1, Item 8	Note 2	N	
Table 17.1.7-1 Reg. Pos. 2&4 of BTP CMEB 9.5-1	A.7.3, Item 19	Note 2	N	
Table 17.1.7-1 GL 89-02 & EPRI NP5652	A.7.3, Item 18	Note 2	N	
Table 17.1.7-1 ANSI/ANS-3.1-1987, Sect. 4.7	Appendix A	Note 2, Qualification requirements are in Appendix A. NSRB members will meet the qualification requirements of ANS-3.1-1993, subsection 4.7, as clarified in NRC Regulatory Guide 1.8, Revision 3, and the QATR. This is a standard previously endorsed by the NRC and is therefore not a reduction in commitment.	N	
17.2.1	B.1	Note 2	N	
17.2.2(1)	B.2(1)	Note 2	N	
17.2.2(2-3)	B.2(2)	Note 2	N	
17.2.2(4-6)	B.2(3)	Note 2	N	
17.2.2(7)	Appendix A, Item 1.6	Note 2	N	
17.2.2(8)	B.2(4)	Note 2	N	
17.2.3(1)	B.3(1)	Note 2	N	
17.2.3(2)	B.3(6)	Note 2	N	
17.2.3(3)	B.3(5)	Note 2	N	
17.2.3(4,7)	B.3(1)	Note 2	N	

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Current QAPSO Section / (Paragraph)	CGG QATR Section / (Paragraph)	Change Discussion	R/N/I (Note 1)	Basis for Reduction in Commitment Meeting Appendix B
17.2.3(5-6)	B.3(3-4)	Note 2	N	
17.2.4(1)	B.4(9)	Note 2, NQA-1, BR 7	N	
17.2.4(2)	B.4(4)	Note 2	N	
17.2.4(3)	A.5, A.7.3	Note 2, NQA-1-1994 Part 1 Basic Requirement 2 and Supplements establish qualification requirements	N	
17.2.4(4)	B.4(5)	Note 2	N	
17.2.4(5)	B.4(6)	Note 2	N	
17.2.4(6)	B.14(2)	Note 2	N	
17.2.4(7)	B.4(1,6,7)	Note 2	N	
17.2.4(8)	B.4(2-3)	Note 2	N	
17.2.4(9)	B.5(3,8)	Note 2, NQA-1-1994 Supplement 7S-1	N	
17.2.4(10)	B.4(2), B.5	Note 2	N	
17.2.4(11)	B.4(8)	Note 2, NQA-1-1994 Supplement 7S-1	N	
17.2.5(1)	B.4(2)	Note 2	N	
17.2.5(2)	B.5(2)	Note 2, NQA-1-1994 Supplement 7S-1	N	
17.2.5(3)	A.2.1.4	Note 2	N	
17.2.5(4)	B.4(5)	Note 2	N	
17.2.5(5)	B.5(2), A.5	Note 2, NQA-1-1994 Supplement 7S-1	N	
17.2.6(1)	B.6	Note 2	N	
17.2.6(2)	B.2(1), B.4(6)	Note 2	N	
17.2.7(1-2)	B.7(1)	Note 2	N	
17.2.7(3)	B.2(1), B.4(6)	Note 2	N	
17.2.7(4)	B.7(2)	Note 2, NQA-1-1994 Supplement 13S-1	N	
17.2.8(1-3,5)	B.8	Note 2	N	
17.2.8(4)	B.4(1,6)	Note 2	N	
17.2.8(6)	B.3(3)	Note 2	N	
17.2.9(1-2,4-6)	B.9(1)	Note 2	N	
17.2.9(3)	B.9(1), B.15(1), B.4(6)	Note 2	N	
17.2.10(1-5)	B.10	Note 2	N	
17.2.10(6)	B.8	Note 2	N	
17.2.11(1-2,4)	B.11	Note 2, NQA-1-1994 Basic Requirement 9 & Supplement 9S-1	N	
17.2.11(3)	B.4(6)	Note 2	N	
17.2.12(1-5)	B.12	Note 2, NQA-1-1994 Basic Requirement 10 & Supplement 10S-1	N	

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Current QAPSO Section / (Paragraph)	CGG QATR Section / (Paragraph)	Change Discussion	R/N/I (Note 1)	Basis for Reduction in Commitment Meeting Appendix B
17.2.12(6)	B.4(1,6)	Note 2	N	
17.2.13(1-2)	Appendix C	Note 2, Defined in NQA-1-1994 Part 1 Introduction	N	
17.2.13(3-4)	A.6(2)	Note 2	N	
17.2.13(5)	A.4(2)	Note 2	N	
17.2.13(6)	B.13(4)	Note 2, NQA-1-1994 Basic Requirement 16	N	
17.2.13(7-10)	B.13(4)	Note 2, NQA-1-1994 Basic Requirement 15 & Supplement 15S-1	N	
17.2.13(11)	B.13(3)	Note 2	N	
17.2.14	B.14	Notes 2 & 3, Document Control is a complete rewrite reflecting the change in commitment from ANSI N18.7-1972 to ANSI N18.7-1976/ANS-3.2. QATR Section B.14, in conjunction with Section A.1 and Appendices A and C, establish the document control requirements in lieu of a commitment to ANSI N18.7-1976/ANS-3.2. Attachment 3 of the submittal provides the details.	N	
17.2.14(1-2)	A.1(2,5) B.14(1-2)	Note 2, Covered by NQA-1-1994 Part 1, Basic Requirement 5	N	
17.2.14(3)	B.14(1-2,4-5) Appendix A	Notes 2 & 3	N	
17.2.14(4)	B.14(3)	Note 2, This change is consistent with the provisions approved by the NRC in <u>Safety Evaluation Report</u> "Entergy Operations, Inc, Quality Assurance Program Consolidation," dated November 6, 1998	N	
17.2.14(5)	A.1(5)	Note 2	N	
17.2.14(6)	B.14(1)	Note 2	N	
17.2.14(7)	B.4(1,6)	Note 2	N	
17.2.14(8)	B.14(1-2)	Note 2	N	
17.2.15(1-3)	B.15(1-3)	Note 2, NQA-1-1994 Part 1 Basic Requirement 17 and Supplement 17S-1	N	
17.2.15(4-8)	B.15(3)	Note 2, NQA-1-1994 Part 1 Supplement 17S-1	N	
N/A	B.16	Note 3	N	
N/A	B.17	New commitment from NQA-1-1994, Supplement 11S-2	I	
17.3.1(1)	C.2(1)	Note 2	N	
17.3.1(2)	C.1(3)	Note 2	N	
17.3.1(3)	C.2(1,3,6)	Note 2	N	
17.3.1(4)	Appendix A, Item	Note 2	N	

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Current QAPSO Section / (Paragraph)	CGG QATR Section / (Paragraph)	Change Discussion	R/N/I (Note 1)	Basis for Reduction in Commitment Meeting Appendix B
	2.0			
17.3.1(5)	C.1(1), C.2(1)	Note 2	N	
17.3.2(1)	C.1(2), A.3	Note 2	N	
17.3.2(2)	C.2(1)	Note 2	N	
17.3.2(3)	C.2(1-3,10)	Note 2, NQA-1-1994 Supplement 18S-1	N	
17.3.2(4)	C.2(2-3)	Note 2	N	
17.3.2(5)	C.2(3-4)	Note 2	N	
17.3.2(6-8)	N/A	Removed details more appropriate to implementing procedures	N	
17.3.2(9)	C.2(1,10)	Note 2, NQA-1-1994 Supplement 18S-1	N	
17.3.2(10)	C.2(10)	Note 2, NQA-1-1994 Supplement 18S-1	N	
17.3.2(11)	C.2(6,10)	Note 2, NQA-1-1994 Supplement 18S-1	N	
17.3.2(12)	B.4(2), B.5	Note 2, NQA-1-1994 Basic Requirement 7 and Supplement 7S-1	N	
17.3.2(13)	N/A	Removed details more appropriate to implementing procedures	N	
17.3.2(14)	N/A	Removed details more appropriate to implementing procedures	N	
Table 17.3.2-1	C.2(4)	Note 2	N	

NOTES:

1. R = Reduction in Commitment  
N = Not a Reduction in Commitment  
I = Increase in Commitment
2. Wording in the CGG QATR establishes equivalent requirements for commitments. Any wording difference is the result of format needs associated with changing to Standard Review Plan 17.3 format, and to reflect a consistent format and level of detail for CGG fleet operations.
3. As described in Section A.7.3 (7.a) of the CGG QATR, there is no longer a commitment to compliance with the requirements of ANSI N-18.7/ANS-3.2 as NQA-1-1994 Part 1 contains equivalent quality assurance requirements. Other “administrative controls” elements of ANSI N-18.7/ANS-3.2 have been included in the CGG QATR and the appropriate sections of the CGG QATR are referenced in this Table.

**ATTACHMENT (3)**

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**TABLE COMPARING ANSI N18.7-1976/ANS-3.2 TO ASME NQA-1-1994  
AND THE CGG QATR**

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ANSI N18.7-1976/ANS-3.2	NQA-1-1994 or CGG QATR	Comments
<p><b>1. Scope</b></p> <p>This Standard provides requirements and recommendations for an administrative controls and quality assurance program necessary to provide assurance that operational phase activities at nuclear power plants are carried out without undue risk to the health and safety of the public. The requirements of this Standard apply to all activities affecting the safety-related functions of nuclear power plant structures, systems, and components.</p>	<p>Introduction to NQA-1-1994 Part I</p> <p>QATR Corporate Statement of Quality Assurance Policy states "Constellation Generation Group, LLC is an advocate of quality performance in our daily activities. The quality assurance program described in procedures has been developed to assure that activities, as defined within the program scope, are being performed correctly and in conformance with applicable requirements."... "The quality assurance program applies to all activities affecting the safety related functions of those structures, systems, and components that prevent or mitigate the consequences of or monitor the course of postulated accidents, events, or phenomena that could cause undue risk to the health and safety of the public."</p>	
<p>It is not intended to apply to test mobile and experimental reactors nor reactors not subject to U.S. Nuclear Regulatory Commission licensing. However, applicable sections of this Standard should be used as they apply to related activities. Activities included are: design changes, purchasing, fabricating, handling, shipping, storing, cleaning, erecting, installing, inspecting, testing, operating, maintaining, repairing, refueling and modifying.</p>	<p>Introduction to NQA-1-1994 Part I</p> <p>QATR Section A.1 - The quality assurance program applies to activities affecting the performance of safety-related structures, systems and components, including, but not limited to, design; procurement; fabrication; installation; modification; maintenance; repair; refueling; operation; training, inspection; tests; and decommissioning.</p>	
<p>It is recommended that the administrative controls and quality assurance provisions of this Standard be applied to other important plant equipment at a level commensurate with the importance of the equipment to reliable and efficient plant operation. However, it is emphasized that this Standard is directed primarily toward administrative controls and quality assurance associated with safety-related activities, equipment and procedures.</p>	<p>QATR Section A.1 - It is CGG's policy to assure a high degree of availability and reliability of its nuclear plants while ensuring the health and safety of the public and its workers. To this end, selected elements of the quality assurance program are also applied to certain equipment and activities that support safe and reliable plant operations, or where other non-CFR NRC guidance establishes program requirements.</p>	
<p>This Standard incorporates criteria that permit a degree of flexibility, since administrative practices vary among organizations operating nuclear power plants.</p>		<p>NQA-1 is similar in allowing some flexibility based on importance to safety.</p>
<p>The Nuclear Regulatory Commission (NRC) promulgates</p>	<p>Introduction to NQA-1-1994 Part I</p>	

ANSI N18.7-1976/ANS-3.2	NQA-1-1994 or CGG QATR	Comments
<p>regulations applicable to many aspects of the design, construction and operation of nuclear power reactors. This Standard contains criteria for administrative controls and quality assurance for nuclear power plants during the operational phase of plant life. This phase is generally considered to commence with initial fuel loading, except for certain preoperational activities. Certain operating activities may commence prior to fuel loading and certain initial construction activities may extend past fuel loading. Owner organizations should identify clearly those activities that fall in these overlapping time periods and should specify whether the activities are to be considered as operational or as construction activities.</p>	<p>QATR Corporate Statement of Quality Assurance Policy and Section A.1</p>	
<p>This Standard is intended to be consistent with applicable criteria for quality assurance, including those given in Title 10, Code of Federal Regulations, Part 50, "Licensing of Production and Utilization Facilities," Appendix B. [1]<sup>1</sup> This Standard fully and completely describes the general requirements and guidelines of American National Standard Quality Assurance Program Requirements for Nuclear Power Plants, N45.2-1971, [2] as those requirements and guidelines apply during the operational phase of plant life.</p>	<p>NQA-1-1994 Part I</p> <p>QATR Corporate Statement of Quality Assurance Policy states: "This program is designed to assure the safe operation of each Nuclear Station and to meet the requirements of Title 10, Code of Federal Regulations, Part 50 (10CFR50), Appendix B, Quality Assurance Criteria for Nuclear Power Plants."</p>	<p>10 CFR 50, Appendix B, is met through a combination of NQA-1 and the QATR.</p>
<p><b>2. Definitions</b>  <b>2.1 Limitations.</b>  The definitions given below are applicable specifically to this Standard. Other terms and their definitions are contained in American National Standard, Quality Assurance Terms and Definitions, N45.2.10 [3].</p>		<p>NQA-1 replaces N45.2 and daughters, including N45.2.10</p>
<p><b>2.2 Glossary of Terms</b>  <b>administrative controls.</b> Rules, orders, instructions, procedures, policies, practices and designations of authority and responsibility.</p>	<p>QATR Appendix C</p>	
<p><b>audit.</b> A formal, independent examination with intent to verify conformance with established requirements.</p>	<p>NQA-1, Introduction to Part I</p>	<p>NQA-1 provides more clarity</p>
<p><b>emergency procedures.</b> Written procedures which specify actions, including manipulation of plant controls, to reduce the consequence of an accident or potentially hazardous condition which has already occurred, to implement the emergency plan, or to prepare for</p>	<p>QATR Appendix B</p>	

<sup>1</sup> Numbers in brackets refer to corresponding numbers in Section 6, References.

ANSI N18.7-1976/ANS-3.2	NQA-1-1994 or CGG QATR	Comments
possible hazardous natural occurrences.		
<b>experiments.</b> Performance of those plant operations carried out under controlled conditions in order to establish characteristics or values not previously known.	QATR Appendix C	
<b>independent review.</b> Review completed by personnel not having direct responsibility for the work function under review regardless of whether they operate as a part of an organizational unit or as individual staff members (see review).	QATR Appendix C	
<b>inspection.</b> Examination, observation, or measurement to determine the conformance of materials, supplies, components, parts, appurtenances, systems, personnel performance, procedures, processes or structures to predetermined requirements.	NQA-1, Introduction to Part I	
<b>maintenance and modification procedures.</b> Written procedures defining the policies and practices by which structures; mechanical, electrical and instrumentation and control systems; and components thereof of a nuclear power plant are kept in a condition of good repair or efficiency so that they are capable of performing their intended functions. As used in this Standard, these procedures apply to those activities performed by maintenance or contractor personnel to maintain, repair or modify safety-related equipment. Related activities are those actions taken by operating personnel to determine that a planned maintenance activity can be safely performed under the existing plant operating conditions, to authorize the release of equipment to be maintained in accordance with equipment control procedures, and to assure that the equipment has been returned to normal operating status at the completion of the maintenance work including verification of functional acceptability. Procedures for these related activities by operating personnel are considered to be operating procedures, but may be included in maintenance procedures.	QATR Appendix C and Section B.16	
<b>nuclear power plant.</b> Any plant using a nuclear reactor to produce electric power, process steam or space heating.	QATR Appendix C	
<b>off-normal condition procedures.</b> Written procedures which specify operator actions for restoring an operating variable to its normal controlled value when it departs from its range or to restore	QATR Appendix C	

ANSI N18.7-1976/ANS-3.2	NQA-1-1994 or CGG QATR	Comments
normal operating conditions following a perturbation. Such actions are invoked following an operator observation or an annunciator alarm indicating a condition which, if not corrected, could degenerate into a condition requiring action under an emergency procedure.		
<b>onsite operating organization.</b> Onsite personnel concerned with operation, maintenance and certain technical services.	QATR Appendix C	
<b>operating activities.</b> Work functions associated with normal operation and maintenance of the plant, and technical services routinely assigned to the onsite operating organization.	QATR Appendix C	
<b>operating procedures.</b> Written procedures defining the normal method, means and limits of operation of a nuclear power plant, a plant system or systems, or processes, including actions to be taken by operating personnel for removal from and return to service equipment on which maintenance is to be or has been performed (see also maintenance and modification procedures).	QATR Appendix C	
<b>operational phase.</b> That period of time during which the principal activity is associated with normal operation of the plant. This phase of plant life is considered to begin formally with commencement of fuel loading, and ends with plant decommissioning.	QATR Appendix C	
<b>owner organization.</b> The organization, including the onsite operating organization, which has overall legal, financial and technical responsibility for the operation of one or more nuclear power plants.	NQA-1, Introduction to Part I	
<b>quality assurance.</b> 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 the satisfactory completion of the work.	NQA-1, Introduction to Part I	
<b>review.</b> A deliberately critical examination, including observation of plant operation, evaluation of audit results, procedures, certain contemplated actions, and after-the-fact investigations of abnormal conditions (see independent review).	QATR Appendix C	
<b>shall, should and may.</b> The word "shall" is used to denote a	Definition in NQA-1 as part of the definition of <i>guideline</i>	

ANSI N18.7-1976/ANS-3.2	NQA-1-1994 or CGG QATR	Comments
requirement; the word, "should" to denote a recommendation; and the word "may" to denote permission, neither a requirement nor a recommendation.		
<b>supervision.</b> Direction of personnel activities or monitoring of plant functions by an individual responsible and accountable for the activities he directs or monitors.	QATR Appendix C	
<b>surveillance testing.</b> Periodic testing to verify that safety-related structures, systems and components continue to function or are in a state of readiness to perform their functions.	QATR Appendix C	
<b>system.</b> An integral part of a nuclear power plant comprising components which may be operated or used as a separate entity to perform a specific function.	QATR Appendix C	
<b>testing.</b> Performance of those steps necessary to determine that systems or components function in accordance with predetermined specifications.	NQA-1, Introduction to Part I	NQA-1 expounds on the definition.
<p><b>3. Owner Organization</b></p> <p><b>3.1 General.</b></p> <p>The owner organization shall establish an administrative controls and quality assurance program which complies with this Standard. The program shall be in effect at all times during the operational phase to assure that operational phase activities are carried out without undue risk to the health and safety of the public. The program shall require that decisions affecting safety are made at the proper level of responsibility and with the necessary technical advice and review. The owner organization may delegate to other organizations the work of establishing and executing the administrative controls and quality assurance program or any part thereof, in accordance with this Standard, but shall retain responsibility therefor.</p>	<p>QATR Corporate Statement of Quality Assurance Policy states: "Constellation Generation Group, LLC is an advocate of quality performance in our daily activities. The quality assurance program described in procedures has been developed to assure that activities, as defined within the program scope, are being performed correctly and in conformance with applicable requirements. This program is designed to assure the safe operation of each Nuclear Station and to meet the requirements of Title 10, Code of Federal Regulations, Part 50 (10CFR50), Appendix B, Quality Assurance Criteria for Nuclear Power Plants. The quality assurance program applies to all activities affecting the safety related functions of those structures, systems, and components that prevent or mitigate the consequences of or monitor the course of postulated accidents, events, or phenomena that could cause undue risk to the health and safety of the public."</p> <p>QATR Section A.2. - Decisions affecting safety are made at the level appropriate for its nature and effect, and with any necessary technical advice for review.</p>	

ANSI N18.7-1976/ANS-3.2	NQA-1-1994 or CGG QATR	Comments
	QATR Section A.3 - Although authority for development and execution of specified parts of the program may be delegated to others (e.g. suppliers), CGG retains overall responsibility.	
<p><b>3.2 Assignment of Authority and Responsibility.</b>  It is essential that all members of the organization involved in operation of nuclear power plants, including those at the highest management levels, recognize the necessity that the plants be operated under a well formulated and detailed administrative controls and quality assurance program to assure safety and efficiency. Lines of authority, responsibility and communication shall be established from the highest management level through intermediate levels to and including the onsite operating organization (including those offsite organizational units assigned responsibility for procurement, design and construction, quality assurance, and technical support activities). These relationships shall be documented and updated, as appropriate, in the form of organizational charts, functional descriptions of departmental responsibilities and relationships and job descriptions for key personnel positions or in equivalent forms of documentation.</p> <p>The owner organization shall specify in writing the authority and responsibility assigned to individuals and organizations involved in establishing, executing and measuring the overall effectiveness of the administrative controls and quality assurance program required by this Standard.</p>	NQA-1-1994, Basic Requirement 1 and Supplement 1S-1 QATR Section A.2	
The persons or organizations responsible for defining and measuring the overall effectiveness of the program shall be designated, shall be sufficiently independent from cost and scheduling considerations when opposed to safety considerations, shall have direct access to responsible management at a level where appropriate action can be accomplished, and shall report regularly on the effectiveness of the program to the plant manager and the cognizant offsite management.	NQA-1, Basic Requirement 1	
Persons or organizations performing functions of assuring that the administrative controls and quality assurance program is established and implemented or of assuring that an activity has been correctly performed shall have sufficient authority and organizational freedom	NQA-1, Basic Requirement 1	

ANSI N18.7-1976/ANS-3.2	NQA-1-1994 or CGG QATR	Comments
to: identify quality problems; initiate, recommend or provide solutions, through designated channels; and verify implementation of solutions.		
<p>The organizational structure and the functional responsibility assignments shall be such that:</p> <p>(1) Attainment of program objectives is accomplished by those who have been assigned responsibility for performing work. This may include interim examinations, checks, and inspections of the work by the individual performing the work.</p> <p>(2) Verification of conformance to established program requirements is accomplished by a qualified person who does not have responsibility for performing or directly supervising the work. The method and extent of such verification shall be commensurate with the importance of the activity to plant safety and reliability.</p>	NQA-1, 1S-1, subsection 2.1	
<p>In structuring the organization and assigning responsibility, quality assurance should be recognized as an interdisciplinary function involving many organizational components and, therefore, should not be regarded as the sole domain of a single quality assurance group. For example, it may be more appropriate for nuclear engineers to perform reviews of plant nuclear engineering activities rather than quality assurance engineers because of the special competence required to perform these reviews. Quality assurance encompasses many functions and activities and extends to various levels in all participating organizations, from the top executive to all workers whose activities may influence quality.</p>	NQA-1, Supplement 1S-1	
<p><b>3.3 Indoctrination and Training.</b>  Provisions shall be made for indoctrination and training of those personnel in the owner organization performing activities affecting quality to assure that suitable proficiency is achieved and maintained. Such personnel also shall be provided training concerning the administrative controls and quality assurance program which, as a minimum, shall include the following areas: overall company policies, procedures, or instructions which establish the program; procedures or instructions which implement the program related to the specific job-related activity.</p>	NQA-1, Basic Requirement 2 NQA-1, Supplement 2S-4 QATR Section A.5	

ANSI N18.7-1976/ANS-3.2	NQA-1-1994 or CGG QATR	Comments
<p><b>3.4 Onsite Operating Organization</b>  <b>3.4.1 General.</b>  A number of factors influence management in its decision regarding the establishment of an onsite operating organization. These include the owner organization's established staffing policies, the physical size and complexity of the nuclear power plant, the number of units, the extent of assistance provided by offsite technical support organizations, the extent of reliance on consultants and the availability of qualified personnel from other sources to assist in activities, such as initial start-up, refueling, maintenance or modification work.</p> <p>A nuclear power plant onsite operating organization may change with time. For example, the number and qualifications of personnel making up the onsite technical support staff can generally be reduced as a plant progresses through initial operation to operational maturity. Management shall give careful consideration to the timing and extent of such changes.</p>	<p>NQA-1, Supplement 1S-1  QATR Section A.2</p>	<p>The established organization is based on the factors discussed in this subsection of N18.7</p>
<p><b>3.4.2 Requirements for the Onsite Operating Organization.</b>  The onsite operating organization shall include one or more individuals knowledgeable in the following fields: nuclear power plant operation; nuclear power plant mechanical, electrical and electronic systems; nuclear engineering; chemistry and radiochemistry; radiation protection; and quality assurance.</p>	<p>QATR Section A.2.2 - The on-site operating organization includes one or more individuals knowledgeable in the following fields: nuclear power plant operation; nuclear power plant mechanical, electrical and electronic systems; nuclear engineering; chemistry and radiochemistry; radiation protection; and quality assurance. Site procedures provide detailed organizational descriptions.</p>	
<p>Initial incumbents or replacements for members of the onsite operating organization and offsite technical support organizations shall have appropriate experience, training and retraining to assure that necessary competence is maintained in accordance with the provisions of American National Standard for Selection and Training of Nuclear Power Plant Personnel, N18.1-1971. [4]</p>	<p>QATR Section A.5 - Personnel assigned to implement elements of the QA program must be capable of performing their assigned tasks. To this end, CGG establishes and maintains formal indoctrination and training programs... When required by code, regulation, or standard, specific qualification and selection of personnel is conducted in accordance with those requirements...</p> <p>QATR Section A.7.3</p>	<p>Note CGG facilities commit to N18.1-1971 or later (ANSI/ANS-3.1) standards, as described in the respective facility technical specifications.</p>
<p>Personnel whose qualifications do not meet those specified in N18.1 and who are performing inspection, examination, and testing activities during the operations phase of the plant, including</p>	<p>QATR Section A.5 - ...CGG commits to compliance with NQA-1-1994 Supplements 2S-1 and 2S-2 for qualification of inspection, examination or test personnel (with alternatives</p>	<p>NQA-1-1994 Part I contains equivalent requirements to ANSI</p>

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<p>preoperational and start-up testing, shall be qualified to American National Standard Qualifications of Inspection, Examination, and Testing Personnel for the Construction Phase of Nuclear Power Plants, N45.2.6-1973 [5], except that the QA experience cited for Levels I, II, and III should be interpreted to mean actual experience in carrying out the types of inspection, examination, or testing activity, being performed.</p>	<p>and exceptions).</p>	<p>N45.2.6 within the regulatory position of Reg. Guide 1.28, Revision 3.</p>
<p>The owner organization shall designate those positions in the onsite operating organization which shall be filled by personnel holding NRC reactor operator and senior reactor operator licenses. Requirements for the minimum number of personnel holding such licenses who shall be present at the plant under various operating conditions and situations shall also be specified.</p>		<p>Unit Technical Specifications, SARs and 10CFR50.54(m) establish specific requirements for numbers of personnel requiring NRC licenses based on operating conditions/situations.</p>
<p>The Plant Manager shall have overall responsibility for the execution of the administrative controls and quality assurance program at the plant to assure safety.</p>	<p>QATR Section A.2.2 states that the Site Vice President is responsible for overall plant nuclear safety and implementation of the Company's quality assurance program.</p>	<p>This reflects the differences in responsibility that have developed since N18.7 was developed.</p>
<p>An individual or organizational unit knowledgeable and experienced in nuclear power plant operational phase activities and quality assurance practices shall be designated and assigned the responsibility to verify that the program is being effectively implemented. Depending on the organizational structure, the individual or organizational unit may report functionally to onsite plant management or an offsite organization (see also 3.2). Reporting to onsite plant management is preferable since such an arrangement usually results in improved communications in identifying problems and initiating corrective action. The individual or organizational unit in this case may receive technical guidance from offsite support groups. This individual's or organizational unit's duties and responsibilities shall be such that the required attention can be devoted, as required, to verifying that the program is being</p>	<p>NQA-1, Basic Requirement 1 and Supplement 1S-1 QATR Appendix A</p>	

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effectively executed. The individual or organizational unit shall report on the effectiveness of the program to the Plant Manager and to other cognizant management as may be designated. Their activities shall be periodically audited by designated offsite personnel.		
<b>4. Reviews and Audits</b>	NQA-1-1994, Basic Requirement 18 and Supplement 18S-1 QATR Section C and Appendix A	
<p><b>4.1 General.</b>  Programs for reviews and for audits of activities affecting plant safety during the operational phase shall be established by the owner organization to:</p> <p>(1) Verify that these activities are performed in conformance with this Standard and with company policy and rules, approved operating procedures and license provisions.  (2) Review significant proposed plant changes, tests and procedures  (3) Verify that reportable events, which require reporting to NRC in writing within 24 hours, are promptly investigated and corrected in a manner which reduces the probability of recurrence of such events  (4) Detect trends which may not be apparent to a day-to-day observer</p>	<p>QATR Appendix A - The CGG ensures that operational phase activities of the facilities are independently reviewed on a periodic basis. The purpose of these reviews is to: (1) verify that operational phase activities are performed in accordance with this QATR and CGG administrative controls, procedures, and license provisions; (2) review significant proposed plant changes, tests, and procedures; (3) verify that events that are reportable to the NRC are promptly investigated and corrected so as to reduce the probability of recurrence; and (4) detect trends that may not be apparent to a day-to-day observer</p>	
<p>These programs for reviews and audits shall, themselves, be periodically reviewed for effectiveness by management of the owner organization.</p>	<p>QATR Section A.3 - The QA program status, scope, adequacy and compliance with 10CFR50 Appendix B are regularly reviewed by CGG management through reports, meetings, review of audit results, and documented assessments performed by management teams. The NSRB reviews the status and adequacy of the QA program at least once every two years to assure that it is meaningful and effectively complies with corporate policy and 10CFR50, Appendix B. This review consists of an audit, or a review equivalent to an audit, performed by company personnel or outside organizations</p> <p>QATR Section C.2 - The effectiveness of independent monitoring and assessments are evaluated every two years by an independent organization such as the Nuclear Industry Evaluation Program (NIEP). Results are reported to senior management, and corrective actions are implemented as needed.</p>	

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<p>The programs provided for reviews and for audits may take different forms. For example, the owner organization may assign these functions to separate established organizational units independent of the onsite operating organization, or may appoint a standing committee comprised of individuals from within or outside the owner organization to perform reviews and to exercise overview of audits. Historically, a committee approach was used to provide both review and audit capability for early commercial nuclear power plants. This approach was employed to make the most efficient use of personnel with pertinent experience and qualifications. In the ensuing period, the availability of competent personnel has significantly increased as the nuclear power industry has expanded and the sources of trained manpower have responded to the resulting demand. This growing pool of talent in the aggregate, is sufficient to encourage alternative approaches to the review and audit committees commonly used in the past.</p>		<p>N18.7 wording does not establish requirements that either NQA-1 or the CGG QATR would need to address.</p>
<p>In general, the time required of individuals serving as members of independent review groups is a function of the number of nuclear power plants an owner organization has in operation. For this reason, owner organizations contemplating rapid growth and an expanding commitment to nuclear power should regard the use of committees to meet the independent review functions as an interim approach for effective utilization of available technical expertise. In addition, such owner organizations should include in their expansion planning, provisions for early establishment of organizational units to provide independent review, for recruitment of staff, and for an orderly transition to such an organizational structure in the event a committee approach has been used previously to meet the independent review function</p>		<p>N18.7 wording does not establish requirements that either NQA-1 or the CGG QATR would need to address.</p>
<p>An independent offsite organizational unit may be assigned review responsibilities including responsibility for reviewing audit reports provided by onsite staff members, or both functions may be assigned to an organizational unit that is independent of line responsibility for operating activities. This Standard does not specify an organizational structure for meeting the review and audit functions, but in lieu thereof delineates essential elements of satisfactorily comprehensive programs for review and for audit in the manner best suited to the owner organization involved.</p>	<p>QATR Appendix A Item 2.0</p>	

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<b>4.2 Program Description.</b> Written programs for both audits and independent reviews shall be prepared that contain: (1) Subjects to be audited and independently reviewed.	QATR Section C.2 & Appendix A	
(2) Responsibility and authority of those supervising audits and conducting independent reviews. These responsibilities shall include the identification of problems and the verification of corrective action. Additional responsibilities may include recommendations to appropriate management of solutions to problems and the approval or disapproval of contemplated actions.	NQA-1 Basic Requirement 1 & 18, Supplement 18S-1 QATR Sections A.2 and C., Appendix A	
(3) Mechanisms for initiating audit and independent review activities.	NQA-1 Basic Requirement 1 & Supplement 18S-1	
(4) Provisions for use of specialists or subgroups.	NQA-1 Supplement 2S-1, Section 2.1 QATR Section C.2	
(5) Authority to obtain access to the nuclear power plant operating records and operating personnel to perform audits and independent reviews.	NQA-1 Supplement 18S-1	
(6) Requirements, for distribution of reports and other records to appropriate staff members and managers in the owner organization.	NQA-1 Supplement 18S-1	
(7) Identification of the management position (or positions, if auditors and reviewers have different reporting chains) to which auditors and independent reviewers report.	NQA-1 Basic Requirement 1	
(8) Provisions for assuring that personnel responsible for audit and independent review are kept informed on a timely basis of matters within their scope of responsibility.	NQA-1 Basic Requirement 18	
(9) Provisions for follow-up action, including reaudit of deficient areas where indicated.	NQA-1 Supplement 18S-1	
(10) Other provisions required for effective audits and independent reviews.	QATR Sections A.3 & C, Appendix A	
<b>4.3 Independent Review Program.</b> Activities occurring during the operational phase shall be independently reviewed on a periodic basis.	QATR Appendix A	

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The independent review program shall be functional prior to initial core loading.	QATR Appendix A, Item 2.0	
<p><b>4.3.1 Personnel.</b>  Personnel assigned responsibility for independent reviews shall be specified, in both number and technical disciplines, and shall collectively have the experience and competence required to review problems in the following areas:</p> <ol style="list-style-type: none"> <li>(1) Nuclear power plant operations</li> <li>(2) Nuclear engineering</li> <li>(3) Chemistry and radiochemistry</li> <li>(4) Metallurgy</li> <li>(5) Nondestructive testing</li> <li>(6) Instrumentation and control</li> <li>(7) Radiological safety</li> <li>(8) Mechanical and electrical engineering</li> <li>(9) Administrative controls and quality assurance practices</li> <li>(10) Other appropriate fields associated with the unique characteristics of the nuclear power plant involved.</li> </ol> <p>An individual may possess competence in more than one specialty area. If sufficient expertise is not available from within the owner organization, independent reviews shall be supplemented through outside consultants or organizations. Provisions shall be made to assure that appropriate expertise is brought to bear in reviews of operational phase activities.</p>	QATR Appendix A	
<p><b>4.3.2 Standing Committees Functioning as Independent Review Bodies</b>  <b>4.3.2.1 Committee Composition.</b>  When a standing committee is responsible for the independent review program, it shall be composed of no less than five persons, of whom no more than a minority are members of the onsite operating organization. Competent alternates are permitted if designated in advance. The use of alternates shall be restricted to legitimate absences of principals.</p>	QATR Appendix A Item 2.0	
<p><b>4.3.2.2 Meeting Frequency.</b>  Formal meetings of personnel assigned to a standing committee functioning as an independent review group shall be scheduled as needed. During the period of initial operation such meetings should</p>	QATR Appendix A Item 2.0	

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<p>be held no less frequently than once per calendar quarter. Subsequently, the meeting frequency shall not be less than twice a year.</p>		
<p><b>4.3.2.3 Quorum.</b> A quorum for formal meetings of the committee held under the provisions of 4.3.2.2 shall consist of not less than a majority of the principals, or duly appointed alternates, and shall be subject to the following constraints: the chairman (or his duly appointed alternate) shall be present for all formal meetings; and no more than a minority of the quorum shall have line responsibility for operation of the plant.</p>	QATR Appendix A Item 2.0	
<p><b>4.3.2.4 Meeting Records.</b> Minutes of all meetings of the committee shall be prepared and retained. All documentary material reviewed should be identified. Decisions and recommendations made by the committee shall be documented. Meeting minutes shall be disseminated promptly to appropriate members of management having responsibility in the area reviewed. (See also Section 5.2.12.)</p>	QATR Appendix A Item 2.0	
<p><b>4.3.3 Organizational Units Functioning as Independent Review Bodies.</b> An organizational unit assigned primary responsibility for review of operational phase activities shall report to a designated management representative who is assigned authority and responsibility for effective functioning of the unit and who is not immediately responsible for the performance of the activities to be reviewed. The supervisor of such an organizational unit should schedule periodic formal meetings of his staff, or of appropriate subparts thereof, for the purpose of fostering interaction in reviews of specific operational phase activities.</p>	QATR Appendix A Item 1.0	
<p><b>4.3.3.1 Documentation of Reviews.</b> Written records of reviews shall be prepared and retained. All documentary material reviewed should be identified. Results of reviews conducted by the unit including recommendations and proposed actions shall be subject to approval of the supervisor of the unit, and shall be disseminated promptly to appropriate members of management having responsibility in the area reviewed. (See also</p>	QATR Appendix A Item 1.0	

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Section 5.2.12.)		
<p><b>4.3.4 Subjects Requiring Independent Review.</b>  The following subjects shall be reviewed by the independent review body:</p> <p>(1) Written safety evaluations of changes in the facility as described in the Safety Analysis Report, changes in procedures as described in the Safety Analysis Report and tests or experiments not described in the Safety Analysis Report which are completed without prior NRC approval under the provisions of 10 CFR 50.59(a)(1). [1] This review is to verify that such changes, tests or experiments did not involve a change in the technical specifications or an unreviewed safety question as defined in 10 CFR 50.59(a)(2). [1]</p>	QATR Appendix A Item 1.0	
<p>(2) Proposed changes in procedures, proposed changes in the facility, or proposed tests or experiments, any of which involves a change in the technical specifications or an unreviewed safety question as defined in 10 CFR 50.59(c). [1] Matters of this kind shall be referred to the independent review body by the onsite operating organization (see 4.4) following its review, or by other functional organizational units within the owner organization, prior to implementation.</p>	QATR Appendix A Item 1.0	Note – change in 50.59 language (“unreviewed safety question” no longer used) – but otherwise covered in QATR Appendix A.
<p>(3) Changes in the technical specifications or license amendments relating to nuclear safety prior to implementation, except in those cases where the change is identical to a previously reviewed proposed change.</p>	QATR Appendix A Item 1.0	
<p>(4) Violations, deviations and reportable events, which require reporting to the NRC in writing within 24 hours, such as:</p>	QATR Appendix A Item 1.0	
<p>(a) Violations of applicable codes, regulations, orders, technical specifications, license requirements or internal procedures or instructions having safety significance</p>	QATR Appendix A Item 1.0	
<p>(b) Significant operating abnormalities or deviations from normal or expected performance of plant safety-related structures, systems, or components</p>	QATR Appendix A Item 1.0	
<p>(c) Reportable events, which require reporting to the NRC in writing within 24 hours, as defined in the plant technical specifications  Review of events covered under this subsection shall include the</p>	QATR Appendix A Item 1.0	

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results of any investigations made and the recommendations resulting from such investigations to prevent or reduce the probability of recurrence of the event.		
(5) Any other matter involving safe operation of the nuclear power plant which an independent reviewer deems appropriate for consideration, or which is referred to the independent reviewers by the onsite operating organization or by other functional organizational units within the owner organization.	QATR Appendix A Item 1.0	
<p><b>4.4 Review Activities of the Onsite Operating Organization.</b> The onsite operating organization shall provide, as part of the normal duties of plant supervisory personnel, timely and continuing monitoring of operating activities to assist the Plant Manager in keeping abreast of general plant conditions and to verify that the day-to-day operating activities are conducted safely and in accordance with applicable administrative controls. These continuing monitoring activities are considered to be an integral part of the routine supervisory function and are important to the safety of plant operation.</p>	<p>NQA-1-1994 Basic Requirement 2</p> <p>QATR Section A.3 - Managers and supervisors are responsible for timely and continuing monitoring of performance to verify that day-to-day activities are conducted safely and in accordance with applicable requirements.</p>	
The onsite operating organization should perform reviews periodically and as situations demand, to evaluate plant operations and to plan future activities. The important elements of the reviews should be documented. Such reviews serve a useful purpose but shall not take the place of the reviews and audits described in Sections 4.3 and 4.5, respectively.	QATR Section C.1	
The onsite operating organization should screen subjects of potential concern to independent reviewers and perform preliminary investigations (see 4.3.4). The Plant Manager, in carrying out his responsibility for overall safety of plant operations, shall be responsible for timely referral of appropriate matters to management and independent reviewers.	<p>QATR Appendix A Item 1.0</p> <p>QATR Section A.2.2 - The Plant General Manager, in carrying out the responsibility for overall safety of plant operations, is responsible for timely referral of appropriate plant matters to management and independent reviewers.</p>	
<p><b>4.5 Audit Program.</b> A comprehensive system of planned and documented audits shall be carried out to verify compliance with all aspects of the administrative controls and quality assurance program.</p>	QATR Section C.2 - A program of planned and periodic assessments is established and implemented to confirm that activities affecting quality comply with the QA program and that the QA program has been implemented effectively. Assessments provide comprehensive independent evaluation of activities and procedures.	

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Audits of selected aspects of operational phase activities shall be performed with a frequency commensurate with their safety significance and in such a manner as to assure that an audit of all safety-related functions is completed within a period of two years.	QATR Section C.2 - Audits of selected aspects of operational phase activities are performed with a frequency commensurate with their strength of performance and safety significance and in such a manner as to assure that an audit of all safety-related functions is completed within a period of two years.	
Audits shall include as a minimum verification of compliance and effectiveness of implementation of internal rules, procedures (for example, operating, design, procurement, maintenance, modification, refueling, surveillance, test, security and radiation control procedures and the emergency plan), regulations and license provisions; programs for training, retraining, qualification and performance of operating staff; corrective actions taken following abnormal occurrences; and observation of performance of operating, refueling, maintenance and modification activities, including associated record keeping.	NQA-1 Basic Requirement 1 & Supplement 18S-1 QATR Section C.2	
Written reports of such audits shall be reviewed by the independent review body and by appropriate members of management including those having responsibility in the area audited.	NQA-1, Basic Requirement 1 & Supplement 18S-1 QATR Section A.3 & Appendix A	
Those performing the audits may be members of the audited organization; however, they shall not audit activities for which they have immediate responsibility. While performing the audit, they shall not report to a management representative who has immediate responsibility for the activity being audited.	NQA-1 Basic Requirement 18 & Supplement 18S-1	
Appropriate and timely follow-up action, including reaudit of deficient areas, shall be taken.	NQA-1 Basic Requirement 18 & Supplement 18S-1	
Periodic review of the audit program shall be performed by the independent review body or by a management representative at least semiannually to assure that audits are being accomplished in accordance with requirements of technical specifications and of this	QATR Appendix A Item 2.0	

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Standard.		
Further guidance on requirements for auditing of quality assurance programs for nuclear power plants exists in draft form. <sup>2</sup>		Descriptive in nature. No action required.
<b>5. Program, Policies and Procedures</b>		
<b>5.1 Program Description.</b> The total program for providing administrative controls and quality assurance during the operational phase may be described in many diverse documents. For example, operating procedures may be compiled in one manual, maintenance procedures in a second manual and Quality Assurance procedures in a third. It is not intended that all source documents be compiled in one master document.		Descriptive in nature. No action required.
However, a summary document shall be compiled by each owner organization to identify the sources, to index such source documents to the requirements of this Standard and to provide a consolidated base for description of the program.	QATR Section B.14 - Each site maintains documentation that describes how implementing documents are maintained to assure that quality assurance program requirements are met and are not inadvertently removed in later revisions.	
The owner organization shall identify in the program description those structures, systems and components to be covered by the program and the major organizational units and their responsibilities.	QATR Section A.1 - A list, or other means of identification, of safety-related Systems, Structures, and Components (SSC) under the control of the quality assurance program is established and maintained for each operating plant.	
The program shall provide control over activities affecting the quality of the structures, systems and components to an extent consistent with their importance to safety. The program shall take into account the need for special controls, processes, tests, equipment, tools, and skills to attain the required quality and the need for verification of quality by inspections, evaluation or test.	NQA-1 Basic Requirement 2	
<b>5.2 Rules of Practice.</b> The owner organization shall establish rules and instructions pertaining to personnel conduct and control, including consideration of job-related factors which influence the effectiveness of operating and maintenance personnel, including such factors as number of	QATR Section A.1 - In addition, to provide a clear understanding of CGG operating philosophy, CGG establishes rules of practice pertaining to personnel conduct and control, including consideration of job related factors which can influence the effectiveness of operating and	

<sup>2</sup> Footnote from N18.7 "Requirements for auditing of Quality Assurance Programs for Nuclear Power Plants," Proposed American National Standard N45.2.12, trial use (Draft 4, Revision 2) January 1 1976; correspondence should be sent to: Secretary, American National Standards Committee N45, The American Society of Mechanical Engineers, United Engineering Center, 345 East 47 street, New York, NY 10017. The provisions of this draft standard shall be used for audits performed under this section except the audit frequency specified herein shall be used."

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<p>hours at duty station, availability on call of professional and supervisory personnel, method of conducting operations, and preparing and retaining plant documents. These rules and instructions should provide a clear understanding of operating philosophy and management policies.</p>	<p>maintenance personnel, including such factors as number of hours at duty station, availability on-call of professional and supervisory personnel, method of conducting operations, and preparing and retaining plant documents.</p>	
<p><b>5.2.1 Responsibilities and Authorities of Operating Personnel.</b>  The responsibilities and authorities of the plant operating personnel shall be delineated. These shall include, as a minimum:</p> <ol style="list-style-type: none"> <li>(1) The reactor operator's authority and responsibility for shutting the reactor down when he determines that the safety of the reactor is in jeopardy or when operating parameters exceed any of the reactor protection system setpoints and automatic shutdown does not occur.</li> <li>(2) The responsibility to determine the circumstances, analyze the cause, and determine that operations can proceed safely before the reactor is returned to power after a trip or an unscheduled or unexplained power reduction.</li> <li>(3) The senior reactor operator's responsibility to be present at the plant and to provide direction for returning the reactor to power following a trip or an unscheduled or unexplained power reduction.</li> <li>(4) The responsibility to believe and respond conservatively to instrument indications unless they are proved to be incorrect.</li> <li>(5) The responsibility to adhere to the plant's Technical Specifications.</li> <li>(6) The responsibility to review routine operating data to assure safe operation.</li> </ol>	<p>QATR Section A.3 - In addition, operating personnel responsibilities include:</p> <ol style="list-style-type: none"> <li>(1) The reactor operator's authority and responsibility for shutting down the reactor when it is determined that the safety of the reactor is in jeopardy or when operating parameters exceed any of the reactor protection system setpoints and automatic shutdown does not occur.</li> <li>(2) The responsibility to determine the circumstances, analyze the cause, and determine that operations can proceed safely before the reactor is returned to power after a trip or an unexplained or unscheduled power reduction.</li> <li>(3) The senior reactor operator's responsibility to be present at the plant and to provide direction for returning the reactor to power following a trip or an unscheduled or unexplained power reduction.</li> <li>(4) The responsibility to believe and respond conservatively to instrument indications unless they are proved to be incorrect.</li> <li>(5) The responsibility to adhere to the plant's Technical Specifications.</li> <li>(6) The responsibility to review routine operating data to assure safe operation.</li> </ol>	
<p><b>5.2.2 Procedure Adherence.</b>  Procedures shall be followed, and the requirements for use of procedures shall be prescribed in writing.</p>	<p>QATR Section A.3 - Adherence to procedures is vital to the safe and reliable operation of CGG's Nuclear Power Plants. Personnel are responsible for adhering to established procedures, interpreting them conservatively in case of doubt, and recommending changes when necessary. Procedures with the potential to affect nuclear or personnel safety shall be strictly adhered to. When an activity controlled by such procedures cannot be accomplished as described or accomplishment of such activity would result in an undesirable situation, the work shall be stopped and the plant placed in a safe condition. Work shall not resume until the</p>	

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	procedure is changed to reflect correct work practices.	
<p>Rules shall be established which provide methods by which temporary changes to approved procedures can be made, including the designation of a person or persons authorized to approve such changes. Temporary changes which clearly do not change the intent of the approved procedure, shall as a minimum be approved by two members of the plant staff knowledgeable in the areas affected by the procedures. At least one of these individuals shall be the supervisor in charge of the shift and hold a senior operators license on the unit affected. Such changes shall be documented and, if appropriate, incorporated in the next revision of the affected procedure. In the event of an emergency not covered by an approved procedure, operations personnel shall be instructed to take action so as to minimize personnel injury and damage to the facility and to protect health and safety.</p>	<p>QATR Section B.14 - Temporary changes to approved procedures that do not change the intent are approved by two members of plant staff knowledgeable in the areas affected by the procedure. Temporary changes to procedures identified in Appendix B are approved by two members of plant staff knowledgeable in the areas affected by the procedure, at least one of whom is a person holding an active senior reactor operator's license. Temporary changes are documented, reviewed by the PORC or by a Qualified Reviewer, and approved by the designated approval authority within 14 days of implementation.</p> <p>QATR Section A.3 - Operating personnel responsibilities include... the responsibility to take action to minimize personnel injury or damage to the facility and to protect the health and safety of the public in the event of an emergency not covered by approved procedures.</p>	
<p>Guidance should be provided to identify the manner in which procedures are to be implemented. Examples of such guidance include identification of those tasks that require:</p> <ol style="list-style-type: none"> <li>(1) The written procedure to be present and followed step by step while the task is being performed</li> <li>(2) The operator to have committed the procedural steps to memory</li> <li>(3) Verification of completion of significant steps, by initials or signatures of check-off lists.</li> </ol>	<p>QATR Section B.14 - Provisions include establishing levels of use, such as requiring the document to be present at the work location.</p> <p>QATR Appendix B - Guidance is established to identify the manner in which procedures are to be implemented, including identification of those tasks that require (1) the written procedure to be present and followed step by step while the task is being performed, (2) the user to have committed the procedure steps to memory, (3) verification of completion of significant steps, as by initials or signatures or use of check-off lists.</p>	
<p>The types of procedures that shall be present and referred to directly are those developed for extensive or complex jobs where reliance on memory cannot be trusted, e.g., reactor start-up, tasks which are infrequently performed, and tasks in which operations must be performed in a specified sequence. [Procedural steps for which actions should be committed to memory include, for example, immediate actions in emergency procedures. Routine procedural</p>	<p>QATR Appendix B - Procedures that are required to be present and referred to directly are those developed for extensive or complex jobs where reliance on memory cannot be trusted, tasks that are infrequently performed, and tasks where steps must be performed in a specified sequence. When documentation of an action is specified, the necessary data is recorded as the task is performed.</p>	<p>N18.7 wording in brackets are included in this table for completeness; they do not establish requirements that either NQA-1 or the</p>

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<p>actions that are frequently repeated may not require the procedure to be present.] Copies of all procedures shall be available to appropriate members of the plant staff. If documentation of an action is required, the necessary data shall be recorded as the task is performed. [Examples of procedures requiring verification are furnished in 5.3.4.1 and 5.3.4.2.]</p>	<p>QATR Section B.14 - Controlled copies of instructions and procedures are made available to and used by the persons performing the activity covered</p>	<p>QATR would need to address.</p>
<p><b>5.2.3 Operating Orders.</b> A mechanism shall be provided for dissemination to the plant staff of instructions of general and continuing applicability to the conduct of business. Such instructions, sometimes also referred to as standing orders or standard operating procedures, should deal with job turnover and relief, designation of confines of control room, definition of duties of operators and others, transmittal of operating data to management, filing of charts, limitations on access to certain areas and equipment, shipping and receiving instructions, or other such matters. Provisions should be made for periodic review and updating of standing orders.</p>	<p>QATR Section A.1 - In addition, means are provided for dissemination to plant staff of instructions of both general and continuing applicability (e.g., dealing with job turnover and relief, designation of confines of the control room, limitations on access to certain areas), as well as those of short-term applicability (e.g., dealing with short-term operating conditions, publications, personnel actions). Provisions are included for review, updating, and cancellation of such instructions.</p>	
<p><b>5.2.4 Special Orders.</b> A mechanism shall be provided for issuing management instructions which have short-term applicability and which require dissemination. Such instructions, sometimes referred to as a special orders, should encompass special operations, housekeeping, data taking, publications and their distribution, plotting process parameters, personnel actions, or other similar matters. Provisions should be made for periodic review, updating and cancellation of special orders.</p>	<p>QATR Section A.1 - In addition, means are provided for dissemination to plant staff of instructions of both general and continuing applicability (e.g., dealing with job turnover and relief, designation of confines of the control room, limitations on access to certain areas), as well as those of short-term applicability (e.g., dealing with short-term operating conditions, publications, personnel actions). Provisions are included for review, updating, and cancellation of such instructions.</p>	
<p><b>5.2.5 Temporary Procedures.</b> Temporary procedures may be issued during the operational phase: to direct operations during testing, refueling, maintenance and modifications; to provide guidance in unusual situations not within the scope of the normal procedures; and to insure orderly and uniform operations for short periods when the plant, a system, or a component of a system is performing in a manner not covered by existing detailed procedures or has been modified or extended in such a manner that portions of existing procedures do not apply. Temporary procedures shall include designation of the period of time during which they may be used and shall be subject to the review</p>	<p>QATR Appendix B - While not specifically a procedure type, Temporary Procedures may be used to direct operations during testing, refueling, maintenance and modifications; to provide guidance in unusual situations not within the scope of normal procedures; and to insure orderly and uniform operations for short periods when the plant, a system, or a component of a system is performing in a manner not covered by existing detailed procedures, or has been modified or affected in such manner that portions of existing procedures do not apply. Temporary Procedures include designation of the period of time during which they may be used.</p>	

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process prescribed in 4.3 and 5.2.15 as applicable.		
Temporary procedures shall be approved by the management representative assigned approval authority	QATR Section B.14 - ...specified documents are reviewed for adequacy, approved prior to use by authorized persons...	
<p><b>5.2.6 Equipment Control.</b>  Permission to release equipment or systems for maintenance shall be granted by designated operating personnel. Prior to granting permission, such operating personnel shall verify that the equipment or system can be released, and determine how long it may be out of service. Granting of such permission shall be documented. Attention shall be given to the potentially degraded degree of protection when one subsystem of a redundant safety system has been removed for maintenance.</p>	<p>NQA-1, Basic Requirement 14  QATR, Section B.16</p>	
<p>After permission has been granted to remove the equipment from service, it shall be made safe to work on. Measures shall provide for protection of equipment and workers.  Equipment and systems in a controlled status shall be clearly identified. Strict control measures for such equipment shall be enforced.</p>	<p>NQA-1, Basic Requirement 14  QATR Section B.10 - CGG establishes and implements measures to identify the inspection, test and operating status of items and components subject to the provisions of this QATR in order to maintain personnel and reactor safety and avoid unauthorized operation of equipment...</p>	
<p>[Conditions to be considered in preparing equipment for maintenance include, for example: shutdown margin; method of emergency core cooling; establishment of a path for decay heat removal; temperature and pressure of the system; valves between work and hazardous material; venting, draining and flushing; entry into closed vessels; hazardous atmospheres; handling hazardous materials; and electrical hazards.]  When entry into a closed system is required, control measures shall be established to prevent entry of extraneous material and to assure that foreign material is removed before the system is reclosed.</p>	<p>QATR Section B.7 - CGG establishes appropriate cleanliness controls for work on safety related equipment to minimize introduction of foreign material and maintain system/component cleanliness throughout maintenance or modification activities, including documented verification of absence of foreign materials prior to system closure.</p>	<p>N18.7 wording in brackets are included in this table for completeness; they do not establish requirements that either NQA-1 or the QATR would need to address.</p>
<p>Procedures shall be provided for control of equipment, as necessary, to maintain personnel and reactor safety and to avoid unauthorized operation of equipment. These procedures shall require control measures such as locking or tagging to secure and identify equipment in a controlled status. The procedures shall require independent verifications, where appropriate, to ensure that necessary measures, such as tagging equipment, have been</p>	<p>NQA-1, Basic Requirement 14  QATR Section B.10</p>	

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implemented correctly.		
Temporary modifications, such as temporary bypass lines, electrical jumpers, lifted electrical leads, and temporary trip point settings, shall be controlled by approved procedures which shall include a requirement for independent verification. A log shall be maintained of the current status of such temporary modifications.	QATR Section B.2 - In addition, temporary design changes (temporary modifications), such as temporary bypass lines, electrical jumpers and lifted leads, and temporary trip-point settings, are controlled by procedures that include requirements for appropriate installation and removal verifications and status tracking.	
The procedures shall also require that the status of inspections and tests performed upon individual items on the nuclear power plant be indicated by the use of markings such as stamps, tags, labels, routing cards, or other suitable means. Suitable means include identification numbers which are traceable to records of the status of inspections and tests.	NQA-1 Basic Requirement 14	
Procedures shall also provide for the identification of items which have satisfactorily passed required inspections and tests, where necessary to preclude inadvertent bypassing of such inspections and tests. In cases where required documentary evidence is not available, the associated equipment or materials must be considered nonconforming in accordance with Section 5.2.14. Until suitable documentary evidence is available to show the equipment or material is in conformance, affected systems shall be considered to be inoperable and reliance shall not be placed on such systems to fulfill their intended safety functions.	<p>NQA-1 Basic Requirements 8 &amp; 14</p> <p>QATR Section B.10 - Where necessary to preclude inadvertent bypassing of inspections or tests, or to preclude inadvertent operation, these measures require the inspection, test or operating status be verified before release, fabrication, receipt, installation, test or use.</p> <p>QATR Section B.6 - CGG establishes and implements provisions for the identification and control of items to prevent the use of incorrect or defective items... The identification of items is maintained throughout...</p> <p>QATR Section B.4 - documentary evidence that items conform to procurement requirements need not be available at the site prior to item installation, but will be available at the site prior to placing reliance on the item for its intended safety function.</p>	The sum of the requirements from NQA-1 and the QATR accomplish the intent.
When equipment is ready to be returned to service, operating personnel shall place the equipment in operation and verify and document its functional acceptability. Attention shall be given to restoration of normal conditions, such as removal of jumpers or signals used in maintenance or testing or such as returning valves,	QATR Section B.16 - When equipment is ready to be returned to service, operating personnel place the equipment in operation and verify and document its functional acceptability. In completing maintenance and restoring equipment, attention is given to restoration of normal	

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<p>breakers or switches to proper start-up or operating positions from "test" or "manual" positions. When placed into service, the equipment should receive additional surveillance during the run-in period.</p>	<p>conditions, such as removal of jumpers or signals used in maintenance or testing, or such as returning valves, breakers or switches to proper operating positions.</p>	
<p><b>5.2.7 Maintenance and Modifications.</b> Maintenance or modifications which may affect functioning of safety-related structures, systems, or components shall be performed in a manner to ensure quality at least equivalent to that specified in original design bases and requirements, materials specifications and inspection requirements. A suitable level of confidence in structures, systems, or components on which maintenance or modifications have been performed shall be attained by appropriate inspection and performance testing (see also 5.2.17 and 5.3.5).</p>	<p>QATR Section B.16 - CGG establishes controls for the maintenance or modification of items and equipment subject to this QATR to ensure quality at least equivalent to that specified in original design bases and requirements, such that safety-related structures, systems and components are maintained in a manner that assures their ability to perform their intended safety function(s)... Maintenance activities (both corrective and preventive) are scheduled and planned so as not to unnecessarily compromise the safety of the plant... Inspections (verifications) of maintenance or modification activities are established, conducted and documented as required by Section B.12 to establish a suitable level of confidence in affected structures, systems, or components.</p> <p>QATR Section B.8 - These programs include criteria for determining when testing is required, such as proof tests before installation, pre-operational tests, post-maintenance tests, post-modification tests, inservice tests, and operational tests...to demonstrate that performance of plant systems is in accordance with design intent.</p>	
<p>Maintenance or modification of equipment shall be preplanned and performed in accordance with written procedures, documented instructions or drawings appropriate to the circumstances which conform to applicable codes, standards, specifications, and criteria. Skills normally possessed by qualified maintenance personnel may not require detailed step-by-step delineations in a written procedure.</p>	<p>NQA-1, Basic Requirement 5</p> <p>QATR Section A.1 - Activities affecting quality are prescribed by and performed according to documents (such as instructions, procedures or drawings) of a type appropriate to the circumstances and which, where applicable, include quantitative or qualitative acceptance criteria. Such documents are prepared and controlled according to section B.14.</p> <p>QATR Section B.16 - CGG establishes controls for the maintenance or modification of items and equipment... Maintenance activities (both corrective and preventive) are scheduled and planned so as not to unnecessarily compromise</p>	

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	the safety of the plant.	
<p>Means for assuring quality of maintenance and modification activities (for example, inspections, measurements, tests, welding, heat treatment, cleaning, nondestructive examination and worker qualifications in accordance with applicable codes and standards) and measures to document the performance thereof shall be established. This documentation shall be retained as specified in Section 5.2.12.</p> <p>Measures shall be established and documented to identify the inspection and test status of items to be used in maintenance and modification activities. Normally, the point of control for such items should be the plant storage area.</p>	<p>NQA-1, Basic Requirements 2, 3, 9, 10, 11, 14, 17 and associated Supplements. QATR Sections B.10, B.12, B.15, and B.16.</p>	
<p>The following standards contain useful guidance concerning design and construction-related activities associated with modifications and shall be applied to those activities occurring during the operational phase that are comparable in nature and extent to related activities occurring during initial plant design and construction: American National Standard Installation, Inspection and Testing of Instrumentation and Electric Equipment During the Construction of Nuclear Power Generation Station, N45.2.4-1972 (IEEE 336-1972) [6]; American National Standard Supplementary Quality Assurance Requirements for Installation, Inspection and Testing of Structural Concrete and Structural Steel During the Construction Phase of Nuclear Power Plants, N45.2.5-1974 [7]; American National Standard Qualifications of Inspection, Examination and Testing Personnel for the Construction Phase of Nuclear Power Plants N45.2.6-1973 [5]; American National Standard Supplementary Quality Assurance Requirements for Installation, Inspection and Testing of Mechanical Equipment and Systems for Construction Phase of Nuclear Power Plants, N45.2.8-1975 [8] American National Standard Quality Assurance Requirements for the Design of Nuclear Power Plants, N45.2.11-1974 [9]; and American National Standard Quality Assurance for Protective Coating Applied to Nuclear Facilities N101.4-1972 [10]. Considerable care is required in assessing which operational phase activities are comparable in nature and extent to activities normally associated with design and construction.</p>	<p>QATR Section A.7.3</p>	

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<p><b>5.2.7.1 Maintenance Programs.</b> A maintenance program shall be developed to maintain safety-related structures, systems and components at the quality required for them to perform their intended functions. Maintenance shall be scheduled and planned so as not to compromise the safety of the plant.</p>	<p>QATR Section B.16 - CGG establishes controls for the maintenance or modification of items and equipment subject to this QATR to ensure quality at least equivalent to that specified in original design bases and requirements, such that safety-related structures, systems and components are maintained in a manner that assures their ability to perform their intended safety function(s)... Maintenance activities (both corrective and preventive) are scheduled and planned so as not to unnecessarily compromise the safety of the plant.</p>	
<p>Planning shall consider the possible safety consequences of concurrent or sequential maintenance, testing or operating activities. Equipment required to be operable for the prevailing mode shall be available, and maintenance shall be performed in a manner such that license limits are not violated. Planning for maintenance shall include evaluation of the use of special processes, equipment and materials in performance of the task, including assessment of potential hazards to personnel and equipment.</p>	<p>QATR Section B.16 - Maintenance activities (both corrective and preventive) are scheduled and planned so as not to unnecessarily compromise the safety of the plant. Permission to release equipment or systems for maintenance is granted by designated operating personnel who are responsible to verify that the equipment or system can be released and determine how long it may be out of service. This includes attention to the potentially degraded degree of protection when one subsystem of a redundant safety system has been removed for maintenance.</p> <p>QATR Appendix B – Maintenance Procedures contain instructions in sufficient detail to permit maintenance work to be performed correctly and safely...</p>	
<p>[General rules for the development of procedures under a maintenance program which is consistent with the provisions of 5.2.7 shall be written before start-up.] These general rules shall form the basis for developing the repair or replacement procedures at the time of failure. [Procedures required for maintenance of equipment expected to require recurring maintenance should be written prior to plant operation.] As experience is gained in operation of the plant, routine maintenance should be altered to improve equipment performance, and procedures for repair of equipment shall be improved as appropriate. Approved procedures shall be available for repair of safety-related equipment prior to the performance of such repairs (see also Sections 5.2.2 and 5.2.7). A preventive maintenance program including procedures as appropriate for safety-related structures, systems and components shall be established and maintained which prescribes the frequency</p>	<p>QATR Section A.1 - Activities affecting quality are prescribed by and performed according to documents (such as instructions, procedures or drawings) of a type appropriate to the circumstances...</p> <p>QATR Section B.14 - These provisions assure that specified documents are reviewed for adequacy, approved prior to use by authorized persons, and distributed according to current distribution lists and used at the location where the prescribed activity takes place.</p> <p>QATR Section B.16 - CGG establishes controls for the maintenance or modification of items and equipment subject to this QATR to ensure quality at least equivalent to that specified in original design bases and requirements, such that</p>	<p>N18.7 wording in brackets are included in this table for completeness; they do not establish requirements that either NQA-1 or the QATR would need to address.</p>

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<p>and type of maintenance to be performed. [A preliminary program based on service conditions and experience with comparable equipment should be developed prior to fuel loading.] The program should be revised and updated as experience is gained with the equipment.</p>	<p>safety-related structures, systems and components are maintained in a manner that assures their ability to perform their intended safety function(s). A preventative maintenance program prescribes the frequency and type of maintenance to be performed. Adjustments are made where necessary to improve equipment performance.</p>	
<p>The causes of malfunctions shall be promptly determined, evaluated and recorded (see also Sections 4.3 and 4.4). Experience with the malfunctioning equipment and similar components shall be reviewed and evaluated to determine whether a replacement component of the same type can be expected to perform its function reliably. If evidence indicates that common component in safety-related systems have performed unsatisfactorily, corrective measures shall be planned prior to replacement or repair of all such components. Replacement components should have received adequate testing or should be of a design for which experience indicates a high probability of satisfactory performance. Consideration shall be given to phased replacement to permit inservice performance of the new component to be evaluated and thereby minimize the possibility of a hidden deficiency producing a systematic failure. An augmented testing and inspection program should be implemented following a large scale component replacement (or repair) until such time as a suitable level of performance has been demonstrated.</p>	<p>NQA-1 Basic Requirements 15 &amp; 16</p> <p>QATR Section B.13 - If evidence indicates that common components in safety related systems have performed unsatisfactorily, compensatory or corrective measures are planned prior to replacement or repair of such components. Replacement components receive adequate testing or are of a design for which experience indicates a high probability of satisfactory performance. Consideration is given to phased replacement to permit inservice performance to be evaluated and minimize the possibility of systemic failure.</p>	
<p><b>5.2.7.2 Modifications.</b> Design activities associated with modifications of safety-related structures, systems, and components shall be accomplished in accordance with N45.2.11.1974. [9]</p>	<p>NQA-1, Basic Requirement 3 and Supplement 3S-1</p>	
<p><b>5.2.8 Surveillance Testing and Inspection Schedule.</b> A surveillance testing and inspection program shall be prescribed to insure that safety-related structures, systems, and components will continue to operate, keeping parameters within normal bounds, or will act to put the plant in a safe condition if they exceed normal bounds.</p>	<p>NQA-1, Basic Requirements 10 &amp; 11, and Supplements</p> <p>QATR Section B.8 - CGG establishes and implements testing programs to demonstrate that items subject to the provisions of this QATR will perform satisfactorily in service... These programs include criteria for determining when testing is required ... to demonstrate that performance of plant systems is in accordance with design intent.</p> <p>QATR Section B.12 - CGG establishes and implements</p>	

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	provisions for inspections to assure that items, services and activities affecting safety meet established requirements.	
Provisions shall be made for performing required surveillance testing and inspections, including inservice inspections. Such provisions shall include the establishment of a master surveillance schedule reflecting the status of all planned in plant surveillance tests and inspections.	<p>NQA-1, Supplement 10S-1, Section 8, and Basic Requirement 11</p> <p>QATR Section B.8 - CGG establishes and implements testing programs to demonstrate that items subject to the provisions of this QATR will perform satisfactorily in service... These programs include criteria for determining when testing is required, such as... inservice tests, and operational tests (such as surveillance tests... Programs also include provisions for establishing and adjusting test schedules and maintaining status for periodic or recurring tests.</p> <p>QATR Section B.12 - CGG establishes and implements provisions for inspections to assure that items, services and activities affecting safety meet established requirements and conform to applicable documented instructions, procedures and drawings. ...Types of inspections may include ...in-service...</p>	
Frequency of surveillance tests and inspections may be related to the results of reliability analyses, the frequency and type of service, or age of the item or system, as appropriate. <sup>3</sup> Additional control procedures shall be instituted, as necessary, to assure timely conduct of surveillance tests and inspections and appropriate documentation, reporting, and evaluation of the results.	<p>NQA-1, Basic Requirement 11 and Supplement 11S-1</p> <p>QATR Section B.8 - Programs also include provisions for establishing and adjusting test schedules and maintaining status for periodic or recurring tests... Test results are documented and evaluated by the organization performing the test and reviewed by the appropriate authority having responsibility for the item being tested.</p>	
<p><b>5.2.9 Plant Security and Visitor Control.</b></p> <p>Procedures shall be developed to supplement features and physical barriers designed to control access to the plant and, as appropriate, to vital areas within the plant. Information concerning specific design features and administrative provisions of the plant security program shall be confidential and thus accorded limited distribution. The</p>		Administrative controls are established through the security measures required by regulation (10 CFR

<sup>3</sup> Surveillance testing which may increase the probability of plant trips or major transients with accompanying safety concerns should be deferred to periods when such plant trips or transients have a minimum impact of safety and reliability.

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<p>security and visitor control procedures should consider, for example, physical provisions, such as: fences and lighting; lock controls for doors, gates and compartments containing sensitive equipment; and provisions for traffic and access control. Also to be considered are administrative provisions, such as: visitor sign-in and sign-out procedures; escorts and badges for visitors; emphasis on inspection, observation and challenging of strangers by operating crews; and a program of pre-employment screening for potential employees. See American National Standard Industrial Security for Nuclear Power Plants, N18.17-1973, for guidance and provisions for security measures adequate to protect nuclear power plants. [11]</p>		<p>73) and NRC orders. These regulatory requirements have superseded the requirements of ANSI N18.7.</p>
<p><b>5.2.10 Housekeeping and Cleanliness Control.</b> Housekeeping practices shall be utilized recognizing requirements for the control of radiation zones and the control of work activities, conditions and environments that can affect the quality of important parts of the nuclear plant. Housekeeping encompasses all activities related to the control of cleanness of facilities, materials, equipment fire prevention and protection including disposal of combustible material and debris and control of access to areas, protection of equipment, radioactive contamination control and storage of solid radioactive waste.</p>	<p>QATR Section B.7 - Housekeeping practices during normal operations and maintenance activities, including refueling, are established to account for the control of radiation zones and other conditions or environments that could affect the quality of structures, systems and components within the plant. This includes control of cleanness of facilities and materials, fire prevention and protection, disposal of combustible material and debris, control of access to work areas, protection of equipment, radioactive contamination control and storage of solid radioactive waste.</p>	
<p>Housekeeping practices shall assure that only proper materials, equipment, processes and procedures are utilized and that the quality of items is not degraded as a result of housekeeping practices or techniques. Where necessary, procedures and work instructions needed to assure compliance with specific requirements shall be available; e.g., inspection and cleaning of electrical bus and control centers, cleaning of control consoles, radioactive decontamination.</p>	<p>QATR Section B.7 - Housekeeping practices assure that only proper materials, equipment, processes and procedures are used and that the quality of items is not degraded as a result. Necessary procedures or work instructions, such as for electrical bus and control center cleaning, cleaning of control consoles, and radioactive decontamination are developed and used.</p>	
<p>Particular attention should be given to housekeeping in work and storage areas where important items are handled and stored to preclude damage or contamination.</p>	<p>QATR Section B.7 - This includes control of cleanness of facilities and materials, fire prevention and protection, disposal of combustible material and debris, control of access to work areas, protection of equipment, radioactive contamination control and storage of solid radioactive waste.</p>	
<p>American National Standard Housekeeping During the Construction Phase of Nuclear Power Plants, N-45.2.3-1973 [12] shall be applied to those activities occurring during the operational phase that are</p>	<p>QATR Section B.7 - In addition, CGG commits to compliance with the requirements of NQA-1-1994, Subpart 2.3, to establish appropriate provisions for housekeeping...</p>	<p>NQA-1, Subpart 2.3 is equivalent to ANSI N45.2.3.</p>

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comparable in nature and extent to related activities occurring during construction.		
<p>During maintenance or modification activities, certain portions of safety-related systems may be subject to potential contamination with foreign materials. To prevent such contamination, control measures, including measures for access control, shall be established. Immediately prior to closure an inspection shall be conducted to assure cleanness and the result of such inspection shall be documented. American National Standard Cleaning of Fluid Systems and Associated Components during Construction Phase of Nuclear Power Plant, N45.2.1-1973 [13] shall be applied to activities occurring during the operational phase that are comparable in nature and extent to related activities occurring during construction. Measures for minimizing the introduction of foreign materials during maintenance or modification, or cleaning following maintenance or modification of radioactively contaminated systems or of equipment of high radiation fields require special consideration.</p>	<p>QATR Section B.7 - CGG establishes appropriate cleanliness controls for work on safety related equipment to minimize introduction of foreign material and maintain system/component cleanliness throughout maintenance or modification activities, including documented verification of absence of foreign materials prior to system closure.</p> <p>QATR Section B.7 - In addition, CGG commits to compliance with the requirements of Regulatory Guide 1.37, March 1973, "Quality Assurance Requirements for Cleaning of Fluid Systems and Associated Components of Water-Cooled Nuclear Power Plants," (ANSI N45.2.1-1973)...</p>	
<p><b>5.2.11 Corrective Actions.</b> The program shall provide measures to ensure that conditions adverse to plant safety, such as failure, malfunctions, deficiencies, deviations, defective material and equipment, abnormal occurrences, and nonconformances are promptly identified and corrected. In the case of significant conditions adverse to safety, the measures shall assure that the cause of the condition is determined and corrective action taken shall be documented and reported to appropriate levels of management and for independent review in accordance with Section 4.3.</p>	<p>NQA-1, Basic Requirements 15 &amp; 16</p> <p>QATR Section A.6 - ... this includes failures, malfunctions, deficiencies, deviations, defective material and equipment, abnormal occurrences, nonconformances, and out-of-control processes... Significant conditions adverse to quality and significant adverse trends are documented and reported to responsible management...</p>	
<p><b>5.2.12. Plants Records Management.</b> Provisions shall be made for preparation and retention of plant records as appropriate. The responsibility for maintaining records and storing them at a specified location or locations shall be assigned. Retention periods of sufficient duration to assure the ability to reconstruct significant events and satisfy any statutory requirements which apply shall be specified. American National Standard Requirements for Collection, Storage and Maintenance of Quality Assurance Records for Nuclear Power</p>	<p>NQA-1 Basic Requirement 17 and Supplement 17S-1 QATR Section B.15 and Appendix D</p>	

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Plants, N45.2.9-1974, shall be used for management of plant records during the operational phase. [14]		
<p><b>5.2.13 Procurement and Materials Control.</b>  Measures shall be provided for procurement, documentation and control of those materials and components including spare and replacement parts necessary for plant operation, refueling, maintenance and modification. These measures shall utilize American National Standard Quality Assurance Requirements for the Control of Procurement of Items and Services for Nuclear Power Plants, N45.2.13-1976. The Appendix to N45.2.13 is particularly useful in determining the quality assurance requirements depending on the complexity or safety of the item. [15]. Procedures shall be established and implemented to ensure that purchased materials and component associated with safety-related structures or systems are:</p> <ul style="list-style-type: none"> <li>(1) Purchased to specifications and codes equivalent to those specified for the original equipment, or those specified by a properly reviewed and approved revision. (In those cases where the original item or part is found to be commercially "off the shelf," or without specifically identified quality assurance requirements spare and replacement parts may be similarly procured but care shall be exercised to assure at least equivalent performance. In those cases where the QA requirements of the original item cannot be determined, an engineering evaluation shall be conducted by qualified individuals to establish the requirements and controls. This evaluation shall assure that interfaces, interchangeability, safety, fit and function are not adversely affected or contrary to applicable regulatory or code requirements. The results of this evaluation shall be documented);</li> <li>(2) Produced or fabricated under requirements at least equivalent to that of the original equipment, or those specified by a properly reviewed and approved revision;</li> <li>(3) Packaged and transported in a manner that will ensure that the quality is not degraded during transit;</li> <li>(4) Properly documented to show compliance with applicable specifications, codes and standards;</li> <li>(5) Properly inspected, identified and stored to protect against damage, deterioration or misuse;</li> <li>(6) Properly controlled to ensure the identification, segregation and</li> </ul>	NQA-1, Basic Requirement 7, and Supplement 7S-1 QATR Section B.4	NQA-1 Basic and Supplemental requirements associated with sections 4 and 7 are equivalent to the requirements of N45.2.13 and replace that standard.

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disposition of nonconforming material. Special nuclear material and sources shall be shipped and stored as specified in the U.S. Nuclear Regulatory Commission (NRC) fuel license and other applicable regulatory documents.		
<b>5.2.13.1 Procurement Document Control.</b>		
Measures shall be provided to assure that applicable regulatory requirements, design bases and other requirements which are necessary to assure adequate quality are included or referenced in the procedures for procurement of items and services.	NQA-1, Basic Requirement 4 and Supplement 4S-1, subsection 2.2	
To the extent necessary, procurement documents shall require suppliers to provide a quality assurance program consistent with the pertinent requirements of American National Standard Quality Assurance Program Requirements for Nuclear Power Plants, N45.2-1971. [2]	NQA-1, Basic Requirement 4 and Supplement 4S-1, subsection 2.3	
Where changes are made to procurement documents, they shall be subject to the same degree of control as was used in the preparation of the original documents.	NQA-1, Supplement 4S-1, Section 4	
Procurement documents shall include provisions for the following, as applicable: (1) Supplier Quality Assurance Program. Identification of quality assurance requirements applicable to the items or services procured.	NQA-1, Supplement 4S-1, subsection 2.3	
(2) Basic Technical Requirements. Where specific technical requirements apply, such as drawings, specifications, and industrial codes and standards, they shall be identified by titles and dates of issue in such a way as to clearly set forth the applicable documents. Where procedural requirement apply, in such areas as test and inspection needs, fabrication, cleaning, erecting, packaging, handling, shipping and storage, they too, shall be identified clearly and in such a way as to avoid uncertainty as to source and need.	NQA-1, Supplement 4S-1, subsection 2.2	
(3) Source Inspection and Audit. Provisions for access to the supplier's facilities and records for source inspection and audit when the need for such inspection or audit has been determined.	NQA-1, Supplement 4S-1, subsection 2.4	
(4) Documentation Requirements. Records to be prepared, maintained, submitted or made available for review, such as	NQA-1, Supplement 4S-1, subsection 2.5	

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drawings, specifications, procedures, procurement documents, inspection and test records, personnel and procedure qualifications, and material, chemical, and physical test results. Instruction on record retention and disposition shall be provided.		
(5) Lower Tier Procurement. Provisions for extending applicable requirements to lower tier subcontractors and suppliers, including purchaser's access to facilities and records.	NQA-1, Supplement 4S-1, subsection 2.3	
<b>5.2.13.2 Control of Purchased Material, Equipment and Services.</b>		
Measures shall be provided to assure that purchased items and services, whether purchased directly or through contractors, conform to the procurement documents.	NQA-1, Basic Requirement 7	
These measures shall include provisions, as appropriate, for source evaluation and selection, objective evidence of quality furnished by the contractor, inspection and audit at the source and examination of items upon delivery.	NQA-1, Basic Requirement 7	
Measures for evaluation and selection of procurement sources include the use of historical quality performance data, source surveys or audits, or source qualification programs.	NQA-1, Supplement 7S-1, subsection 3.1	
Source inspection or audit shall be performed as necessary to assure the required quality of an item. Source inspection or audit may not be necessary when the quality of the item can be verified by review of test reports, inspection upon receipt, or other means.	NQA-1, Supplement 7S-1, subsections 3.1 and 8.2.2	Reg. Guide 1.28, Rev. 3, Regulatory Position C.3.2 provides additional guidance.
Where required by code, regulation, or contract requirements documentary evidence that items conform to procurement requirements shall be available at the nuclear power plant site prior to installation or use of such items.	NQA-1, Supplement 7S-1, subsection 8.1  QATR Section B.4 - For Supplement 7S-1, Section 8.1, documentary evidence that items conform to procurement requirements need not be available at the site prior to item installation, but will be available at the site prior to placing reliance on the item for its intended safety function.	
This documentary evidence shall be retrievable and shall be sufficient to identify the specific requirements such as codes, standards and specifications met by the purchased item.	NQA-1, Supplement 7S-1, subsection 5.2 and Section 6	

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Where not precluded by other requirements, such documentary evidence may take the form of written certifications of conformance which identify the requirements met by the items, provided means are available to verify the validity of such certifications.	NQA-1, Supplement 7S-1, subsection 8.2	
The effectiveness of the control of quality shall be assessed by the purchaser at intervals consistent with the importance, complexity and quality of the item or service.	NQA-1, Supplement 7S-1, Section 5	Reg. Guide 1.28, Rev. 3, Regulatory Position C.3.2 provides additional guidance.
<b>5.2.13.3 Identification and Control of Materials, Parts and Components.</b>		
Measures shall be provided for the identification and control of materials, parts, and components including partially fabricated subassemblies.	NQA-1, Basic Requirement 8 and Supplement 8S-1	
These procedures shall be implemented to provide insurance that only correct and accepted items are used and installed, and relating an item of production (batch, lot, component, part) at any stage, from initial receipt through fabrication, installation, repair or modification, to an applicable drawing, specification, or other pertinent technical document.	NQA-1, Supplement 8S-1, subsection 2.1	
Physical identification shall be used to the maximum extent possible. Where physical identification is either impractical or insufficient, physical separation, procedural control or other appropriate means shall be employed.	NQA-1, Supplement 8S-1, subsection 2.2	
Identification may be either on the item or on records traceable to the item, as appropriate.	NQA-1, Basic Requirement 8	
Where identification marking is employed, the marking shall be clear, unambiguous and indelible, and shall be applied in such a manner as not to affect the function of the item.	NQA-1, Supplement 8S-1, subsection 2.3	
Markings shall be transferred to each part of an item when subdivided and shall not be obliterated or hidden by surface treatment or coatings unless other means of identification are substituted.	NQA-1, Supplement 8S-1, subsection 2.3	

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When codes, standards or specifications require traceability of materials, parts or components to specific inspection or test records, the program shall be designed to provide such traceability.	NQA-1, Supplement 8S-1, subsection 3.1	
<b>5.2.13.4 Handling, Storage and Shipping.</b> Measures shall be provided to control handling, storage and shipping, including cleaning, packaging and preservation of material and equipment in accordance with established instructions, procedures or drawings, to prevent damage, deterioration and loss. When necessary for particular items, special coverings, special equipment and special protective environments, such as inert gas atmosphere, specific moisture content levels and temperature levels shall be specified, provided, and their existence verified.	NQA-1, Basic Requirement 13, Supplement 13S-1, Section 2	
When necessary for particular items, special coverings, special equipment and special protective environments, such as inert gas atmosphere, specific moisture content levels and temperature levels shall be specified, provided, and their existence verified.	NQA-1, Supplement 13S-1, subsection 3.1	
For critical, sensitive, perishable or high value articles, specific written procedures for handling, storage, packaging, shipping and preservation should be used.	NQA-1, Supplement 13S-1, subsection 3.2	
Special handling tools and equipment should be provided and controlled as necessary to ensure safe and adequate handling.	NQA-1, Supplement 13S-1, subsection 3.3	
Special handling tools and equipment shall be inspected and tested in accordance with written procedures and at specified times, to verify that the tools and equipment are adequately maintained.	NQA-1, Supplement 13S-1, subsection 3.3	
Attention shall be given to providing adequate instructions for marking and labeling of items for packaging, shipment and storage. Marking shall be adequate to identify, maintain and preserve the shipment, including indication of the presence of special environments or the need for special control.	NQA-1, Supplement 13S-1, Section 4	
American National Standard for Packaging, Shipping, Receiving, Storage and Handling of Items for Nuclear Power Plants (During the Construction Phase), N45.2.2-1972, shall be applied to those activities occurring during the operational phase that are comparable	QATR Section B.7 - CGG commits to the provisions of ANSI N45.2.2-1972 or ANSI/ASME NQA-2-1983 Part 2.2	

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in nature and extent to related activities occurring during construction. [16]		
<b>5.2.14 Nonconforming Items.</b> Measures shall be provided to control items, services or activities which do not conform to requirements (see also Section 5.2.6).	NQA-1, Basic Requirement 15	
These procedures shall include as appropriate, instructions for identification, documentation, segregation, disposition and notification to affected organizations.	NQA-1, Basic Requirement 15	
Nonconforming items shall be reviewed and accepted, rejected, repaired or reworked in accordance with documented procedures.	NQA-1, Supplement 15S-1, subsection 4.1	
The responsibility and authority for the disposition of nonconforming items shall be defined.	NQA-1, Supplement 15S-1, subsection 4.2	
Repaired and reworked items shall be reinspected in accordance with applicable procedures.	NQA-1, Supplement 15S-1, subsection 4.5	
Measures which control further processing, delivery or installation of a nonconforming or defective item pending a decision on its disposition shall be established and maintained. Nonconforming items may be disposed of by acceptance "as is," by scrapping or repairing the defective item, or by rework to complete or correct to a drawing or specification. Such measures shall provide assurance that the item is identified as nonconforming and controlled. The measures shall require documentation verifying the acceptability of nonconforming items which have the disposition of "repair" or "use as is." A description of the change, waiver or deviation that has been accepted shall be documented to record the change and denote the as-built condition.	NQA-1, Supplement 15S-1, Sections 2 and 4	
As a guideline, control of nonconforming items by tagging, marking or other means of identification is acceptable where physical segregation is not practical, although physical segregation and marking are preferred.	NQA-1, Supplement 15S-1, Section 3	
<b>5.2.15 Review, Approval and Control of Procedures.</b> The administrative controls and quality assurance program shall provide measures to control and coordinate the approval and issuance of documents, including changes thereto, which prescribe	NQA-1, Basic Requirement 6	

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all activities affecting quality.		
<p>Such documents include those which describe organizational interfaces, or which prescribe activities affecting safety-related structures, systems, or components. These documents also include operating and special orders, operating procedures, test procedures, equipment control procedures, maintenance or modification procedures, refueling, and material control procedures.</p>	<p>QATR Section A.1 - Activities affecting quality are prescribed by and performed according to documents (such as instructions, procedures or drawings) of a type appropriate to the circumstances and which, where applicable, include quantitative or qualitative acceptance criteria. Such documents are prepared and controlled according to section B.14. In addition, means are provided for dissemination to plant staff of instructions of both general and continuing applicability (e.g., dealing with job turnover and relief, designation of confines of the control room, limitations on access to certain areas), as well as those of short-term applicability (e.g., dealing with short-term operating conditions, publications, personnel actions). Provisions are included for review, updating, and cancellation of such instructions.</p> <p>QATR Section A.1 - In addition, as stated in position C.1 of Regulatory Guide 1.33, Revision 2, CGG commits to use Appendix A of Regulatory Guide 1.33 as guidance for establishing the types of procedures that are necessary to control and support plant operation. Requirements specific to procedures are also provided in Appendix B of this QATR.</p>	
<p>These measures shall assure that documents, including revisions or changes, are reviewed for adequacy by appropriately qualified personnel and approved for release by authorized personnel; and are distributed in accordance with current distribution lists and used by the personnel performing the prescribed activity, and that procedures are provided to avoid the misuse of outdated or inappropriate documents.</p> <p>Procedures for operational phase activities of a nuclear power plant reflect the conditions that exist at the time the procedures are written. These conditions include the technical information available, industry experience, and in the case of the initial procedures for a new plant, assumptions made regarding the detailed behavior of the plant that may not be fully known prior to operation. In order to ensure that the procedures in current use provide the best possible instructions for performance of the work involved, systematic review</p>	<p>NQA-1, Basic Requirement 6 and Supplement 6S-1 QATR Section B.14</p>	

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<p>and feedback of information based on use is required. Each procedure shall be reviewed and approved prior to initial use. The frequency of subsequent reviews shall be specified and may vary depending on the type and complexity of the activity involved, and may vary with time as a given plant reaches operational maturity. Applicable procedures shall be reviewed following an unusual incident, such as an accident, an unexpected transient, significant operator error, or equipment malfunction. Applicable procedures shall be reviewed following any modification to a system.</p> <p>Plant procedures shall be reviewed by an individual knowledgeable in the area affected by the procedure no less frequently than every two years to determine if changes are necessary or desirable. A revision of a procedure constitutes a procedure review.</p> <p>Procedures shall be approved as designated by the owner organization before initial use. Rules shall be established which clearly delineate the review of procedures by knowledgeable personnel other than the originator and the approval of procedures and procedure changes by authorized individuals.</p>		
<p>Changes to documents shall be reviewed and approved by the same organizations that perform the original review and approval unless the owner organization designates another qualified organization.</p>	NQA-1, Supplement 6S-1, subsection 3.1	
<p>The reviewing organizations shall have access to pertinent background information upon which to base its approval and shall have adequate understanding of requirements and intent of the original document.</p>	NQA-1, Supplement 6S-1, subsection 3.1	
<p>Those participating in any activity shall be made aware of, and use, proper and current instructions, procedures, drawings, and engineering requirements for performing the activity. Participating organizations shall have procedures for control of the document and changes thereto to preclude the possibility or use of outdated or inappropriate documents.</p>	QATR Section B.14 - Controlled copies of instructions and procedures are made available to and used by the persons performing the activity covered. New or revised controlled documents are made available in a timely fashion to support ongoing work and preclude use of incorrect information.	
<p>Document control measures shall provide for:  (1) Identification of individuals or organizations responsible for preparing, reviewing, approving, and issuing documents and revisions thereto</p>	NQA-1, Supplement 6S-1, Section 2 QATR Section B.14	

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(2) Identifying the proper documents to be used in performing the activity (3) Coordination and control of interface documents (4) Ascertaining that proper documents are being used (5) Establishing current and updated distribution lists		
<b>5.2.16 Measuring and Test Equipment.</b> The method and interval of calibration for each installed instrument and control device shall be defined and shall be based on the type of equipment, stability and reliability characteristics, required accuracies and other conditions affecting calibration.	NQA-1, Basic Requirement 12, Supplement 12S-1	
Tools, instruments, testing equipment and measuring devices used for measurements, tests and calibration shall be of the proper range and type and shall be controlled, calibrated and adjusted and maintained at specified intervals or prior to use to assure the necessary accuracy of calibrated devices.	NQA-1, Basic Requirement 12, Supplement 12S-1, Sections 2 and 3	
When calibration, testing, or other measuring devices are found to be out of calibration, an evaluation shall be made and documented concerning the validity of previous test and the acceptability of devices previously tested from the time of the previous calibration.	NQA-1, Supplement 12S-1, subsection 3.2	
If any calibration, testing or measuring device is consistently found to be out of calibration, it shall be repaired or replaced.	NQA-1, Supplement 12S-1, subsection 3.2	
It is not the intent of this Standard to imply a need for special calibration and control measures on rulers, tape measures, levels and other such devices if normal commercial practices provide adequate accuracy.	NQA-1, Supplement 12S-1, subsection 3.3	
Special calibration shall be performed when the accuracy of either installed or calibrating equipment is questionable.	NQA-1, Supplement 12S-1, subsection 3.2	
Records shall be made and equipment suitably marked to indicate calibration status.	NQA-1, Supplement 12S-1, Section 5	
American National Standard N45.2.4-1972 shall be applied to those activities occurring during the operational phase that are comparable in nature and extent to related activities occurring during construction. [6]	QATR Section A.7.3	

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<p><b>5.2.17 Inspections.</b> A program for inspection of activities affecting safety shall be established and executed by or for the organization performing the activity to verify conformance with applicable documented instructions, procedures, and drawings.</p>	<p>QATR Section B.12 - CGG establishes and implements provisions for inspections to assure that items, services and activities affecting safety meet established requirements and conform to applicable documented instructions, procedures and drawings.</p>	
<p>Inspections, examinations, measurements, or tests of material, products, or activities shall be performed for each work operation where necessary to assure quality.</p>	<p>NQA-1, Supplement 10S-1, subsection 6.1</p>	
<p>Such inspections shall be performed by qualified individuals other than those who performed or directly supervised the activity being inspected. Inspection of operating activities (work functions associated with normal operation of the plant, routine maintenance, and certain technical services routinely assigned to the onsite operating organization) may be conducted by second-line supervisory personnel or by other qualified personnel not assigned first-line supervisory responsibility for conduct of the work.</p>	<p>NQA-1 Basic Requirement 10, and Supplement 10S-1, subsection 3.1 QATR Section B.12</p>	
<p>These independent inspections, i.e., those performed by individuals not assigned first-line supervisory responsibility for the conduct of the work, are not intended to dilute or replace the clear responsibility of first-line supervisors for the quality of work performed under their supervision.</p>	<p>NQA-1 Basic Requirement 10  QATR Section B.1 - Personnel who work directly or indirectly for CGG are responsible for the achievement of acceptable quality in the work covered by this QATR...  QATR Section A.3 - ...Managers and supervisors are responsible for timely and continuing monitoring of performance to verify that day-to-day activities are conducted safely and in accordance with applicable requirements...</p>	
<p>For modifications and nonroutine maintenance, inspections shall be conducted in a manner similar (frequency, type, and personnel performing such inspections) to that associated with construction phase activities (see also Section 5.2.7).</p>	<p>NQA-1, Supplement 10S-1, subsection 7.4</p>	
<p>Inspections of safety-related activities shall be performed in accordance with approved written procedures, which set forth the requirements and acceptance limits and specify the inspection responsibilities.</p>	<p>NQA-1, Basic Requirement 10, and Supplement 10S-1, Section 2</p>	
<p>If mandatory inspection hold points are required, the specific hold</p>	<p>NQA-1, Supplement 10S-1, Section 4</p>	

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points shall be indicated in appropriate documents.		
Information concerning inspection shall be obtained from the related design drawings, specifications and/or other controlled documents.	NQA-1, Supplement 10S-1, Section 2	
When inspection techniques require specialized qualifications or skills, personnel performing the inspection shall meet applicable licensing requirements, codes, and standards appropriate to the discipline involved (see also Sections 5.2.7, 5.2.6 and 5.3.10).	NQA-1, Supplement 10S-1, subsection 3.2  QATR Section A.5 - ... When required by code, regulation, or standard, specific qualification and selection of personnel is conducted in accordance with those requirements as established in the applicable CGG procedures....	
If inspection is impossible or disadvantageous, indirect control by monitoring processing methods, equipment and personnel shall be provided.	NQA-1, Supplement 10S-1, subsection 6.1	
Both inspection and process monitoring shall be provided when control is inadequate without both. In cases where documented verification of quality implied by the above requirements is not possible or feasible, the extent of inspection or performance testing to verify adequacy of structures, systems, or components for service should be, in general, greater than otherwise required.	NQA-1, Supplement 10S-1, subsection 6.1	
The owner organization shall evaluate inspection results along with test results (see Section 5.2.19) to determine whether the individual inspection and test programs demonstrate that the plant can be operated safely and as designed.	NQA-1, Basic Requirement 11  QATR Section B.8 - CGG establishes and implements testing programs to demonstrate that items subject to the provisions of this QATR will perform satisfactorily in service, that the plant can be operated safely and as designed, and that the coordinated operation of the plant as whole is satisfactory...	
Records shall be kept in sufficient detail to permit adequate confirmation of the inspection program. The person recording the data as well as the person approving the inspection results shall be identified. Deviations, their cause, and any corrective action completed or planned as a result of the deviations shall be documented. Inspection records shall be identified as such and shall be retrievable (see also Section 5.2.12).	NQA-1, Supplement 10S-1, Section 9 and Supplement 11S-1 Section 5	Inspection records under NQA-1, may be a part of the work documents.
<b>5.2.18 Control of Special Processes.</b> Measures shall be established and documented to assure that special	NQA-1, Basic Requirement 9 and Supplement 9S-1, Section 2	

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processes, accomplished under controlled conditions in accordance with applicable codes, standards, specifications, criteria, and other special requirements, use qualified personnel and procedures.	QATR Section B.11	
Qualification of personnel, procedures, and equipment shall comply with the requirements of applicable codes and standards.	NQA-1, Supplement 9S-1, subsection 3.1.1	
Special processes are those that require interim in process controls in addition to final inspection to assure quality including such processes as welding, heat treating, chemical cleaning, and nondestructive examination.	NQA-1 Basic Requirement 9 QATR Section B.11	
For special processes not covered by existing codes or standards, or where item quality requirements exceed the requirements of established codes or standards, the necessary qualifications of personnel, procedures, or equipment shall be defined.	NQA-1, Supplement 9S-1, subsection 3.4	
<p><b>5.2.19 Test Control.</b> A test program shall be established to assure that testing required to demonstrate that the item will perform satisfactorily in service is identified and documented, and that the testing is performed in accordance with written test procedures which incorporate or reference the requirements and acceptance limits contained in applicable design documents. The test program shall cover all required tests including: (1) Tests during the preoperational period to demonstrate that performance of plant systems is in accordance with design intent and that the coordinated operation of the plant as a whole is satisfactory, to the extent feasible. (2) Tests during the initial operational phase to demonstrate the performance of systems that could not be tested prior to operation and to confirm those physical parameters, hydraulic or mechanical characteristics that need to be known, but which could not be predicted with the required accuracy, and to confirm that plant behavior conforms to design criteria. The initial start-up test program shall be planned to permit safe fuel loading and start-up; to increase power in safe increments; and to perform major testing at specified power plateaus. If tests require the variation of operating parameters outside of their normal range, the limits within which such variation is permitted shall be prescribed. Prerequisites and record keeping</p>	<p>NQA-1, Basic Requirement 11 and Supplement 11S-1</p> <p>QATR Section B.8 - CGG establishes and implements testing programs to demonstrate that items subject to the provisions of this QATR will perform satisfactorily in service, that the plant can be operated safely and as designed, and that the coordinated operation of the plant as whole is satisfactory. This testing involves the operation of all items in a system or partial system to assure that operation is in accordance with the design criteria and functional requirements. These programs include criteria for determining when testing is required, such as proof tests before installation, pre-operational tests, post-maintenance tests, post-modification tests, inservice tests, and operational tests (such as surveillance tests required by Plant Technical Specifications), to demonstrate that performance of plant systems is in accordance with design intent. Programs also include provisions for establishing and adjusting test schedules and maintaining status for periodic or recurring tests. Tests are performed according to applicable procedures that include, consistent with the effect on safety, (1) instructions and prerequisites to perform the test, (2) use of proper test equipment, (3) acceptance criteria, and (4) mandatory</p>	

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<p>shall be given attention and the scope of the testing shall demonstrate insofar as practicable that the plant is capable of withstanding the design transients and accidents. The suitability of plant operating procedures should be checked to the maximum extent possible during the preoperational and initial start-up test programs.</p> <p>(3) Surveillance tests during the operational phase to provide assurance that failures or substandard performance do not remain undetected and that the required reliability of safety-related systems is maintained (see Section 5.2.8).</p> <p>(4) Tests during design, fabrication and construction activities associated with plant maintenance and modifications during the operational phase and the demonstration of satisfactory performance following plant maintenance and modifications or procedural changes (see Section 5.2.7).</p>	<p>verification points as necessary to confirm satisfactory test completion. Test results are documented and evaluated by the organization performing the test and reviewed by the appropriate authority having responsibility for the item being tested. If acceptance criteria are not met, retesting is performed as needed to confirm acceptability following correction of the system or equipment deficiencies that caused the failure.</p>	
<p><b>5.2.19.1 Preoperational Tests.</b>  Preoperational tests are generally performed sequentially in accordance with written procedures.  Procedures should ensure that prerequisite steps for equipment testing, such as completion of necessary construction, prior testing, safety precautions, and measures to preserve equipment status have been or will be performed (see also Sections 5.2.17 and 5.3.10).  A detailed prescribed physical inspection of equipment components and facilities should be performed to ensure readiness for operation. Typical items to be covered include cleanliness, lubrication, setting of limit switches, calibration of instruments and presence of safety devices. The test procedure should list the checks to be made and include acceptance criteria and reference sources, such as vendor's literature, engineering drawings or plant specifications.  A component test is a functional, operational or performance test of an individual piece of equipment or unit system under prescribed conditions. Typical parameters to be examined are direction of rotation, bearing temperatures, vibration, time delays, and ability to operate with remote and local controls. The procedure should list checks to be made and provide acceptance criteria. Consideration should also be given to providing a run-in period to minimize early failures during operation of the plant.  Individual system tests establish the functional adequacy by operation under prescribed conditions. The tests shall be designed to</p>	<p>NQA-1, Supplement 11S-1, Section 3, and Subpart 2.8, Section 5  QATR Section B.8</p>	

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<p>permit evaluation of system performance including, for example, the measurement of flow, temperature, pressure, response time and vibration, transfer of power supply to emergency power and accuracy and response of control devices.</p> <p>The preoperational testing program should demonstrate, as nearly as can be practicably simulated, the overall integrated operation of the plant systems at rated conditions, including simultaneous operation of auxiliary systems. It may be necessary to defer portions of these tests until nuclear heat is available. The procedures used should be similar to those discussed in 5.3.3 and 5.3.4, and they should be modified to require variation in control parameters, such as pump stops and restarts, cycling valves and varying flows so that system performance can be evaluated. For additional requirements in matters relating to preoperational test programs, American National Standard N45.2.8-1975 is generally applicable. [8]</p>		
<p><b>5.2.19.2 Tests Prior to and During initial Plant Operation.</b> Prior to placing a nuclear power plant into operation, a preoperational test program shall be performed to demonstrate the functional adequacy of plant components, systems and structures. Following fuel loading an initial start-up test program shall be conducted to evaluate plant performance as the start-up progresses.</p>	NQA-1, Basic Requirement 11, and Subpart 2.8, Section 5 QATR Section B.8	
<p><b>Responsibilities</b> The ultimate responsibility for the preparation and execution of adequate preoperational and initial start-up test programs rests with the owner organization. If design or construction is performed by other than the owner organization, design organizations involved should participate in definition of the programs, and the construction organization involved may supply manpower or supervision for execution of part or all of the program, but the owner organization shall determine that the program is adequate and that the results are satisfactory.</p>	<p>QATR Section A.3 - Although authority for development and execution of specified parts of the program may be delegated to others (e.g. suppliers), CGG retains overall responsibility.</p> <p>QATR Section B.8</p>	
<p><b>Scheduling</b> A schedule shall be provided and maintained to provide assurance that all necessary tests are performed and properly evaluated on a timely basis. Testing shall be scheduled so that the safety of the plant is never dependent on the performance of an untested system (see also Section 5.2.8).</p>	QATR Section B.8	

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<p><b>5.2.19.3 Tests Associated with Plant Maintenance, Modifications or Procedure Changes.</b>  Tests shall be performed following plant modifications or significant changes in operating procedures to confirm that the modifications or changes reasonably produce expected results and that the change does not reduce safety of operations.</p>	<p>NQA-1, Supplement 11S-1, Section 2  QATR Section B.8</p>	
<p><b>5.3 Preparation of Instructions and Procedures.</b>  The administrative controls and quality assurance program shall be carried out throughout plant life in accordance with written procedures. Activities affecting safety at nuclear power plants shall be described by written procedures of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions and procedures.  These procedures shall include appropriate quantitative or qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished. These procedures shall provide an approved preplanned method of conducting operations. Procedures shall be prepared and approved prior to implementation as required by 4.3 and 5.2.15.</p>	<p>NQA-1, Basic Requirement 5  QATR Corporate Statement of Quality Assurance Policy  QATR Section A.1  QATR Section B.14</p>	
<p><b>5.3.1 Procedure Scope.</b>  Each procedure shall be sufficiently detailed for a qualified individual to perform the required function without direct supervision, but need not provide a complete description of the system or plant process.</p>	<p>QATR Appendix B first paragraph last sentence - Procedures are sufficiently detailed for a qualified individual to perform the required function without direct supervision, but may not provide a complete description of the system or plant process.</p>	
<p><b>5.3.2 Procedure Content.</b>  The format of procedures may vary from plant to plant, depending on the policies of the owner organization. However, procedures shall include, as appropriate, the following elements:  (1) Title. Each procedure should contain a title descriptive of the work or system or unit to which it applies, a revision number or date, and an approval status.  (2) Statement of Applicability. The purpose for which the procedure is intended should be clearly stated; for example, for use during reactor or plant start-up. If the purpose is not clear from the title, a separate statement of applicability should be provided, which may identify the reasons for particular operations.  (3) References. References, including reference to technical</p>	<p>QATR Appendix B - The format of procedures may vary from plant to plant within CGG; however, procedures include the following elements, as appropriate to the purpose or task covered. These elements are not intended to imply a specific format is required:   <b>Title/status:</b> each procedure is given a title descriptive of the work or subject it addresses, and includes a revision number and/or date and an approval status.   <b>Purpose/Statement of applicability:</b> the purpose for which the procedure is intended is clearly stated (if not clear from the title).</p>	

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<p>specifications, should be included in procedures as applicable. References should be identified within the body of procedures when the sequence of steps requires other tasks to be performed prior to or concurrent with a particular step within that task.</p> <p>(4) Prerequisites. Each procedure should identify those independent actions or procedures which shall be completed and plant conditions which shall exist prior to its use. Prerequisites applicable only to certain sections of a procedure should be so identified.</p> <p>(5) Precautions. Precautions should be established to alert the individual performing the task to those important measures which should be used to protect equipment and personnel, including the public, or to avoid an abnormal or emergency situation. It may be convenient to specify precautions separately. Cautionary notes applicable to specific steps in the procedure should be included in the main body of the procedure and should be identified as such.</p> <p>(6) Limitations and Actions. Limitations on the parameters being controlled and appropriate corrective measures to return the parameter to the normal control band should be specified. It may be convenient to specify limitations and setpoints in a separate section. Where appropriate, quantitative control guides should be provided; for example, an appropriate step of a procedure should say "Manually adjust the feedwater flow controller to maintain the reactor water level at x feet," rather than "Manually adjust the feedwater flow to maintain water level."</p> <p>(7) Main Body. The main body of a procedure should contain step-by-step instructions in the degree of detail necessary for performing a required function or task.</p> <p>(8) Acceptance Criteria. Procedures should contain, where applicable, acceptance criteria against which the success or failure of test-type activity would be judged. In some cases there would be qualitative criteria, i.e., a given event does or does not occur. In other cases quantitative values would be designated.</p> <p>(9) Checkoff Lists. Complex procedures should have checkoff lists. These lists may be included as part of the procedure or may be appended to the procedure.</p>	<p><b>References:</b> applicable references, including reference to appropriate Technical Specifications, are included. References are included within the body of the procedure when the sequence of steps requires other tasks to be performed (according to the reference) prior to or concurrent with a particular step.</p> <p><b>Prerequisites:</b> identifies those independent actions or procedures that must be accomplished and plant conditions which must exist prior to performing the procedure. A prerequisite applicable to only a specific portion of a procedure is so identified.</p> <p><b>Precautions:</b> alert the user to those important measures to be used to protect equipment and personnel, including the public, or to avoid an abnormal or emergency situation during performance of the procedure. Cautionary notes applicable to specific steps are included in the main body of the procedure and are identified as such.</p> <p><b>Limitations and actions:</b> limitations on the parameters being controlled and appropriate corrective measures to return the parameter to the normal control band are specified.</p> <p><b>Main body:</b> contains the step-by-step instructions in the degree of detail necessary for performing the required function or task.</p> <p><b>Acceptance criteria:</b> the quantitative or qualitative criteria against which the success or failure (as of a test-type activity) of the step or action would be judged.</p> <p><b>Check-off lists:</b> complex procedures use check-off lists (aka checklists) which may be included as part of the procedure or appended to it.</p>	
<p><b>5.3.3 System Procedures.</b> Instructions for energizing, filling, venting, draining, starting up,</p>	<p>QATR Appendix B - <b>System Procedures:</b> contain instructions for energizing, filling, venting, draining, starting</p>	

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<p>shutting down, changing modes of operation and other instructions appropriate for operations of systems related to the safety of the plant shall be delineated in system procedures. Procedures for correcting off-normal conditions shall be developed for those events where system complexity may lead to operator uncertainty. System procedures shall contain checkoff lists where appropriate.</p>	<p>up, shutting down, changing modes of operation and other instructions appropriate for operations of systems related to the safety of the plant. Separate procedures may be developed for correcting off-normal conditions for those events where system complexity may lead to operator uncertainty. System procedures contain check-off lists where appropriate.</p>	
<p><b>5.3.4 General Plant Procedures.</b>  [General plant procedures provide instructions for the integrated operations of the plant. In addition to the characteristics of procedures presented in 5.3.1 and 5.3.2, details concerning specific general plant procedures are emphasized in the following sections.]</p>		<p>N18.7 wording in brackets are included in this table for completeness; they do not establish requirements that either NQA-1 or the CGG QATR would need to address.</p>
<p><b>5.3.4.1 Start-up Procedures.</b>  Start-up procedures shall be provided that include starting the reactor from cold or hot conditions and establishing power operation, with the generator synchronized to the line. Recovery from reactor trips shall be in accordance with the start-up procedure and shall be subject to the determinations set forth in 5.2.1.  (1) Prerequisites. Start-up procedures shall include provisions for documented determination that prerequisites have been met, including confirmation that necessary instruments are operable and properly set; valves are properly aligned; necessary systems procedures, tests and calibrations have been completed; and required approvals have been obtained. Checkoff lists are normally used for this purpose.  (2) Main Body. The main body of the start-up procedures shall include the major steps of the start-up sequence, including reference to appropriate system procedures. Such major steps shall include or reference detailed instructions for their performance, for example, minimum instrumentation requirements coverage of control rod withdrawal sequence or soluble poison dilution, manipulation of controls, establishment of feed and steam flow and turbine start-up and synchronization. Checkoff lists should be used for the purpose of confirming completion of major steps in proper sequence.</p>	<p>QATR Appendix B - <b>Start-up Procedures:</b> contain instructions for starting the reactor from cold or hot conditions and establishing power operation. This includes documented determination that prerequisites have been met, including confirmation that necessary instrumentation is operable and properly set; necessary system procedures, tests and calibrations have been completed; and required approvals have been obtained. The main body includes the major steps of the start-up sequence, including reference to appropriate systems procedures. Start-up procedures contain check-off lists where appropriate.</p>	

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<p><b>5.3.4.2 Shutdown Procedures.</b> Shutdown procedures shall be provided to guide operations during and following controlled shutdown or reactor trips and shall include instructions for establishing or maintaining hot standby or cold shutdown conditions, as applicable. The major steps involved in shutting down the plant shall be specified, including detailed instructions for the performance of such actions as monitoring and controlling reactivity, load reduction and cooldown rates, sequence of activating or deactivating equipment, requirements for prompt analyses of causes of reactor trips or abnormal conditions requiring unplanned controlled shutdowns, and provisions for decay heat removal. Checkoff lists should be used for the purpose of confirming completion of major steps in proper sequence.</p>	<p>QATR Appendix B - <b>Shutdown Procedures:</b> contain instructions for operations during controlled shutdown and following reactor trips, and include instructions for establishing or maintaining hot standby or cold shutdown conditions, as applicable. The major steps involved in shutting down the plant are specified, including instructions for such actions as monitoring and controlling reactivity, load reduction, cooldown rates, activating or deactivating equipment, and provisions for decay heat removal. Check-off lists are used, as appropriate, for confirming completion of major steps in proper sequence.</p>	
<p><b>5.3.4.3 Power Operation and Load Changing Procedures.</b> Procedures for steady-state power operation and load changing shall be provided that include, for example, provisions for use of control rods, chemical shim, coolant flow control or any other system available for long-or-short term control of reactivity, making deliberate load changes, responding to unanticipated load changes and adjusting operating parameters.</p>	<p>QATR Appendix B - <b>Power Operation and Load Changing Procedures:</b> contain instructions for steady-state power operation and load changing that include provisions for use of control rods, chemical shim, coolant flow channel control, or for any other system available for short- or long-term control of reactivity, making deliberate load changes and adjusting operating parameters.</p>	
<p><b>5.3.4.4 Process Monitoring Procedures.</b> Procedures for monitoring performance of plant systems shall be required to assure that core thermal margins and coolant quality are maintained at all times, that integrity of fission product barriers is maintained at all times and that engineered safety features and emergency equipment are in a state of readiness to maintain the plant in a safe condition if needed. The limits (maximum and minimum) for significant process parameters shall be identified. The nature and frequency of this monitoring shall be covered by operating procedures, as appropriate.</p>	<p>QATR Appendix B - <b>Process Monitoring Procedures:</b> contain instructions for monitoring performance of plant systems to assure that core thermal margins and coolant quality are maintained in acceptable status at all times, that integrity of fission product barriers is maintained, and that engineered safety features and emergency equipment are in a state of readiness to keep the plant in a safe condition if needed. Maximum and minimum limits for process parameters are appropriately identified.</p>	
<p><b>5.3.4.5 Fuel-Handling Procedures.</b> Fuel-handling operations shall be performed in accordance with written procedures. These procedures shall specify actions for core alterations, accountability of fuel and partial or complete refueling operations that include, for example, continuous monitoring of the neutron flux throughout core loading, periodic recording of data, audible annunciation of abnormal flux increases and evaluation of</p>	<p>QATR Appendix B - <b>Fuel Handling Procedures:</b> contain instructions for core alterations, accountability of fuel and partial or complete refueling operations that include, for example, continuous monitoring of neutron flux throughout core loading, periodic data recording, audible annunciation of abnormal flux increases, and evaluation of core neutron multiplication to verify safety of loading increments.</p>	<p>N18.7 wording in brackets are included in this table for completeness; they do not establish requirements that either NQA-1 or the</p>

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<p>core neutron multiplication to verify the safety of loading increments.</p> <p>Provisions shall be made for preparing specific procedures for each refueling outage and for receipt and shipment of fuel. [Plant procedures should, nonetheless, prescribe the general preplanning for the fuel-handling program and its associated safety measures and should identify those aspects of the program for which procedures are to be prepared for each refueling outage.]</p> <p>(1) Prerequisites. Prerequisites shall be provided in the fuel-handling procedures that include, for example, the status of plant systems required for refueling; inspection of replacement fuel, control rods, poison curtains and internals; designation of proper tools; proper conditions for spent fuel movement; proper conditions for fuel cask loading and movement; and status of interlocks, reactor trip circuits and mode switches.</p> <p>(2) Main Body. The main body of fuel handling procedures shall include requirements for refueling; for example, the status of the core, instructions for proper sequence, orientation, and seating of fuel and components, rules for minimum operable instrumentation, actions to be followed in the event of fuel damage, rules for periods when refueling is interrupted, verification of the shutdown margin and the frequency of determination, communications between control room and the fuel loading station, independent verification of fuel and component location, criteria for stopping refueling and for reducing the size of the fuel loading increment, and a containment evacuation plan and its associated safety measures. Documentation of final fuel and component serial numbers and locations shall be maintained.</p>	<p>Procedures are also provided for receipt and inspection of new fuel, and for fuel movements in the spent fuel storage areas. Fuel handling procedures include prerequisites to verify the status of systems required for fuel handling and movement; inspection of replacement fuel and control rods; designation of proper tools, proper conditions for spent fuel movement, proper conditions for fuel cask loading and movement; and status of interlocks, reactor trip circuits and mode switches. These procedures provide requirements for refueling, including proper sequence, orientation and seating of fuel and components, rules for minimum operable instrumentation, actions for response to fuel damage, verification of shutdown margin, communications between the control room and the fuel handling station, independent verification of fuel and component locations, criteria for stopping fuel movements, and documentation of final fuel and component serial numbers and locations.</p>	<p>CGG QATR would need to address.</p>
<p><b>5.3.5 Maintenance Procedures.</b></p> <p>Maintenance procedures shall contain applicable items listed under 5.3.2 and, in addition, measures to cover the features of maintenance described below.</p> <p>(1) Preparation for Maintenance. Maintenance procedures shall</p>	<p>QATR Appendix B - Maintenance Procedures: contain instructions in sufficient detail to permit maintenance work to be performed correctly and safely, and include provisions for conducting and recording results of required inspections or tests. Appropriate references to other procedures regarding</p>	

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<p>enough detail to permit the maintenance work to be performed correctly and safely, and shall include provisions for conducting and recording results of required tests and inspections. References should be made to vendor manuals, plant procedures, drawings and other sources as applicable.</p> <p>(3) Post Maintenance Check Out and Return to Service. Instructions shall be included, or referenced, for returning the equipment to its normal operating status.</p> <p>(4) Supporting Maintenance Documents. Where appropriate sections of related documents, such as vendor manuals, equipment operating and maintenance instructions, or approved drawings with acceptance criteria provide adequate instructions to assure the required quality of work, the applicable sections of the related documents shall be referenced in the procedure, or may, in some cases, constitute adequate procedures in themselves. Such procedures shall receive the same level of review and approval as operating procedures.</p>		
<p><b>5.3.6 Radiation Control Procedures.</b> Procedures shall be provided for implementation of a radiation control program to meet applicable program requirements. The radiation control program involves the acquisition of data and provision of equipment to perform necessary radiation surveys, measurements and evaluations for the assessment and control of radiation hazards associated with a nuclear power plant. Procedures shall be developed and implemented for: monitoring both external and internal exposures of employees, utilizing accepted techniques; routine radiation surveys of work areas; environmental monitoring in the vicinity of the plant; radiation monitoring of maintenance and special work activities; and for maintaining records demonstrating the adequacy of measures taken to control radiation exposures of employees and others.</p>	<p><b>QATR Appendix B - Radiation Control Procedures:</b> contain instructions for implementation of program requirements necessary to meet regulatory commitments, including acquisition of data and use of equipment to perform necessary radiation surveys, measurements and evaluations for the assessment and control of radiation hazards. These procedures provide requirements for monitoring both external and internal exposures of employees, utilizing accepted techniques; routine radiation surveys of work areas; environmental monitoring in the vicinity of the plant; radiation monitoring of maintenance and special work activities, and for maintaining records demonstrating the adequacy of measures taken to control radiation exposures to employees and others.</p>	
<p><b>5.3.7 Calibration and Test Procedures.</b> Procedures shall be provided for periodic calibration and testing of safety-related instrumentation and control systems. Procedures shall also be provided for periodic calibration of measuring and test equipment used in activities affecting the quality of these systems. The procedures shall provide for meeting surveillance schedules and for assuring measurement accuracy adequate to keep safety-related parameters within operational and safety limits.</p>	<p><b>QATR Appendix B - Calibration and Test Procedures:</b> contain instructions for periodic calibration and testing of safety related instrumentation and control systems, and for periodic calibration of measuring and test equipment used in activities affecting the quality of these systems. These procedures provide for meeting surveillance requirements and for assuring measurement accuracy adequate to keep safety related parameters within operational and safety limits.</p>	

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<p><b>5.3.8 Chemical-Radiochemical Control Procedures.</b>  Procedures shall be provided for chemical and radiochemical control activities. They should include, for example, the nature and frequency of sampling and analyses; instructions for maintaining coolant quality within prescribed limits; and limitations on concentrations of agents that could cause corrosive attack, fowl heat transfer surfaces or become sources of radiation hazards due to activation. Procedures shall also be provided for the control, treatment and management of radioactive wastes and control of radioactive calibration sources.</p>	<p>QATR Appendix B - <b>Chemistry-radiochemistry Control Procedures:</b> contain instructions for chemical and radiochemical activities such as the nature and frequency of sampling and analyses; maintaining coolant quality within prescribed limits; limitations on concentrations of agents that could cause corrosive attack, fowl heat transfer surfaces or become sources of radiation hazards due to activation; control, treatment and management of radioactive wastes and control of radioactive calibration sources, including shipping.</p>	
<p><b>5.3.9 Emergency Procedures.</b>  Procedures shall be provided to guide operations during potential emergencies. They shall be written so that a trained operator will know in advance the expected course of events that will identify an emergency and the immediate action he should take. [Since emergencies may not follow anticipated patterns, the procedures should provide sufficient flexibility to accommodate variations. Emergency procedures that cover actions for manipulations of controls to prevent accidents or lessen their consequences should be based on a general sequence of observations and actions. Emphasis should be placed on operator responses to observations and indications in the control room; that is, when immediate operator actions are required to prevent or mitigate the consequences of a serious condition, procedures should require that those actions be implemented promptly. The emergency procedure format given in 5.3.9.1 provides a basis for coping with emergencies and is an acceptable format for prescribing operator observations and actions. Emergency procedures may contain supplemental background information to further aid operators in taking proper emergency actions, but this information shall be separated from the procedural actions. It is extremely difficult to distinguish between procedures prepared for the purpose of correcting off-normal conditions which in themselves do not constitute actual emergency situations, but which conceivably can degenerate into true emergencies in the absence of positive corrective action, and procedures required for coping with true emergencies that have already occurred. Some owner organizations choose the term "Off-normal Procedures" for the same purpose that others choose "Emergency Procedures." When</p>	<p>QATR Appendix B - <b>Emergency Procedures:</b> contain instructions for response to potential emergencies so that a trained operator will know in advance the expected course of events that will identify an emergency and the immediate actions that should be taken in response. Format and content of emergency procedures are based on regulatory and Owner's Group(s) guidance that identify potential emergency conditions and generally require such procedures to include a title, symptoms to aid in identification of the nature of the emergency, automatic actions to be expected from protective systems, immediate operator actions for operation of controls or confirmation of automatic actions, and subsequent operator actions to return the reactor to a normal condition or provide for a safe extended shutdown period under abnormal or emergency conditions.</p>	<p>N18.7 wording in brackets are included in this table for completeness; they do not establish requirements that either NQA-1 or the CGG QATR would need to address.</p>

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<p>initially available intelligence provided to operating personnel via instrument readings, physical conditions, and personal observations may not clearly indicate the difference between a simple operational problem and a serious emergency, the actions outlined in the emergency procedures shall be based on a conservative course of action by the operating crew. Considerable judgment on the part of competent personnel is required before departing from the emergency procedure.]</p>		
<p><b>5.3.9.1 Emergency Procedure Format and Content.</b>  Emergency procedures shall include, as appropriate, the following elements:</p> <p>(1) Title. The title should be descriptive of the emergency for which the procedure is provided.</p> <p>(2) Symptoms. Symptoms should be included to aid in the identification of the emergency. They should include alarms, operating conditions and probable magnitudes of parameter changes. If a condition is peculiar only to the emergency under consideration, it should be listed first.</p> <p>(3) Automatic Actions. The automatic actions that will probably occur as a result of the emergency should be identified.</p> <p>(4) Immediate Operator Actions. These steps should specify immediate actions for operation of controls or confirmation of automatic actions that are required to stop the degradation of conditions and mitigate their consequences. Examples include the following:</p> <p>(a) The verification of automatic actions. This step is based on equipment operating as designed and the sequence of events following an expected course. Since variations from the expected course may occur, operators should be prepared to manipulate controls as necessary to cope with the problem. However, the procedure should caution the operator not to place systems in "manual" unless misoperation in "automatic" is apparent, and should require him to make frequent checks for proper operation of systems placed in manual control.</p> <p>(b) Assurance that reactor is in a safe condition. This step usually means shutdown of the reactor with sufficient reactivity margin and establishment of required core cooling.</p> <p>(c) Notification to plant personnel of the nature of the emergency.</p>	<p>QATR Appendix B - <b>Emergency Procedures:</b> contain instructions for response to potential emergencies so that a trained operator will know in advance the expected course of events that will identify an emergency and the immediate actions that should be taken in response. Format and content of emergency procedures are based on regulatory and Owner's Group(s) guidance that identify potential emergency conditions and generally require such procedures to include a title, symptoms to aid in identification of the nature of the emergency, automatic actions to be expected from protective systems, immediate operator actions for operation of controls or confirmation of automatic actions, and subsequent operator actions to return the reactor to a normal condition or provide for a safe extended shutdown period under abnormal or emergency conditions.</p>	

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<p>(d) Determination that the reactor coolant system pressure boundary is intact.</p> <p>(e) Confirmation of the availability of adequate power sources.</p> <p>(f) Confirmation that containment and exhaust systems are operating properly in order to prevent uncontrolled release of radioactivity.</p> <p>(5) Subsequent Operator Actions. Steps should be included to return the reactor to a normal condition or to provide for a safe extended shutdown period under abnormal or emergency conditions.</p>		
<p><b>5.3.9.2 Events of Potential Emergency.</b> Potential emergency conditions shall be identified and procedures for coping with them shall be prepared. The following categories of events may, depending upon the design of the plant, be considered as examples of potential emergencies for which procedures are written and for which immediate action is indicated:</p> <ol style="list-style-type: none"> <li>(1) Loss of coolant from identified and unidentified sources, from small loss to design-basis-accident loss</li> <li>(2) Reactor transients and excursions</li> <li>(3) Failure of vital equipment</li> <li>(4) Loss or degradation of vital power sources</li> <li>(5) Civil disturbances</li> <li>(6) Abnormally high radiation levels</li> <li>(7) Excessive release of radioactive liquid or gaseous effluent</li> <li>(8) Malfunction of reactivity control system</li> <li>(9) Loss of containment integrity</li> <li>(10) Conditions that require use of standby liquid poison systems</li> <li>(11) Possible natural occurrences</li> <li>(12) Fires</li> </ol>	<p><b>QATR Appendix B - Emergency Procedures:</b> contain instructions for response to potential emergencies so that a trained operator will know in advance the expected course of events that will identify an emergency and the immediate actions that should be taken in response. Format and content of emergency procedures are based on regulatory and Owner's Group(s) guidance that identify potential emergency conditions and generally require such procedures to include a title, symptoms to aid in identification of the nature of the emergency, automatic actions to be expected from protective systems, immediate operator actions for operation of controls or confirmation of automatic actions, and subsequent operator actions to return the reactor to a normal condition or provide for a safe extended shutdown period under abnormal or emergency conditions.</p>	
<p><b>5.3.9.3 Procedures for Implementing Emergency Plan.</b> Implementing procedures for emergency plan actions shall contain, as appropriate, the following elements:</p> <ol style="list-style-type: none"> <li>(1) Individual assignment of authorities and responsibilities for performance of specific tasks to specific individuals or staff positions.</li> <li>(2) Protective action levels and protective measures outlined for the emergency identified.</li> <li>(3) Specific actions to be taken by coordinating support groups.</li> <li>(4) Procedures for medical treatment and handling of contaminated individuals.</li> </ol>	<p><b>QATR Appendix B - Emergency Plan Implementing Procedures:</b> contain instructions for activating the Emergency Response Organization and facilities, protective action levels, organizing emergency response actions, establishing necessary communications with local, state and federal agencies, and for periodically testing the procedures, communications and alarm systems to assure they function properly. Format and content of such procedures are such that requirements of each site's NRC approved Emergency Plan are met.</p>	

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<p>(5) Special equipment requirements for items such as medical treatment, emergency personnel removal, specific radiation detection, personnel dosimetry and rescue operations, procedures for making this equipment available, plus operating instructions for such equipment, and provisions for its periodic inspection and maintenance.</p> <p>(6) Identification of emergency communications network, including communications required for personnel identification and effective coordination of all support groups.</p> <p>(7) Description of alarm signals in each facility. At sites with multiple units, alarm signals should be consistent from one unit to another. (Signals for initiating protective measures should be clear and distinct from process or operational alarm system to avoid confusion.)</p> <p>(8) Procedures required to restore the plant to normal conditions following an emergency.</p> <p>(9) Requirements for periodically testing of procedures, communications network and alarm systems to assure that they function properly.</p> <p>See also U.S. Nuclear Regulatory Commission (NRC) "Guide to the Preparation of Emergency Plans for Production and Utilization Facilities." [17]</p>		
<p><b>5.3.10 Test and Inspection Procedures.</b></p> <p>Test and inspection procedures shall contain a description of objectives; acceptance criteria that will be used to evaluate the results; prerequisites for performing the tests or inspections including any special conditions to be used to simulate normal or abnormal operating conditions; limiting conditions; and the test or inspection procedure. These procedures shall also specify any special equipment or calibrations required to conduct the test or inspection. Test and inspection results shall be documented and evaluated by responsible authority to assure that test and inspection requirements have been satisfied.</p> <p>Where tests and inspections are to be witnessed, the procedure shall identify hold points in the testing sequence to permit witnessing. The procedure shall require appropriate approval for the work to continue</p>	<p><b>QATR Appendix B - Test and Inspection Procedures:</b> contain the objectives, acceptance criteria, prerequisites for performing the test or inspection, limiting conditions, and appropriate instructions for performing the test or inspection. These procedures also specify any special equipment or calibrations required to conduct the test or inspection and provide for appropriate documentation and evaluation by responsible authority to assure test or inspection requirements have been satisfied. Where necessary, hold or witness points are identified within the procedures and require appropriate approval for the work to continue beyond the designated point. These procedures provide for recording the date, identification of those performing the test or inspection, as-found condition, corrective actions performed (if any), and as-left condition, as appropriate for the subject test or inspection.</p>	

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beyond the designated hold point. The test and inspection procedures shall require recording the date, identification of those performing the test or inspection, as found condition, corrective actions performed, if any, and as-left condition.		
<b>6. References</b>		QATR section A.7.3 establishes the nature and level of commitment to certain references; this section is not addressed in this matrix.

**ATTACHMENT (4)**

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**TABLE OF CGG QATR EXCEPTIONS/ALTERNATIVES**

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CGG QATR EXCEPTIONS/ALTERNATIVES	SOURCE/BASIS FOR ACCEPTANCE
<b>A.5 Personnel Training and Qualification</b>	
<p>For NQA-1-1994 Supplement 2S-1: Inspections, examinations or tests may be performed by individuals in the same organization as that which performed the work, provided that (a) the qualifications of the inspector for an activity are equal to or better than the minimum qualifications for persons performing the activity, (b) the work is within the skills of personnel and/or is addressed by procedures, and (c) if work involves breaching a pressure-retaining item, the quality of the work can be demonstrated through a functional test. When a, b and c are not met, inspections, examinations or tests are carried out by individuals certified in accordance with Supplement 2S-1. Individuals performing visual inspections required by the ASME Boiler and Pressure Vessel Code are qualified and certified according to Code requirements.</p>	<p>This alternative is consistent with the provisions approved by the NRC in <u>Safety Evaluation Report by the Office of Nuclear Reactor Regulation</u>, "Change to the Quality Assurance Program, Quality Assurance Program Consolidation," dated March 24, 2005 for Nuclear Management Company.</p>
<p>In lieu of NQA-1-1994 Nonmandatory Appendix 2A-1, CGG need not establish levels of qualification/ certification for inspection and test personnel. Instead, CGG may establish initial qualification requirements and determines individual qualification through evaluation of education, training and experience, and through demonstration of capability in performing the type of inspections expected on the job.</p>	<p>This alternative is consistent with the provisions approved by the NRC in <u>Safety Evaluation Report by the Office of Nuclear Reactor Regulation</u>, "Change to the Quality Assurance Program, Quality Assurance Program Consolidation," dated March 24, 2005 for Nuclear Management Company.</p>
<p>In lieu of NQA-1-1994 Supplement 2S-2, CGG will follow the applicable standard cited in the latest version(s) of Section XI of the ASME Boiler and Pressure Vessel Code approved by the NRC for use at CGG sites for qualification of nondestructive examination personnel.</p>	<p>This alternative is consistent with the provisions approved by the NRC in <u>Safety Evaluation Report by the Office of Nuclear Reactor Regulation</u>, "Change to the Quality Assurance Program, Quality Assurance Program Consolidation," dated March 24, 2005 for Nuclear Management Company.</p>
<p>For NQA-1-1994 Supplement 2S-3: The requirement that prospective Lead Auditors have participated in a minimum of five (5) audits in the previous three (3) years is replaced by the following:          "The prospective lead auditor shall demonstrate his/her ability to properly implement the independent assessment (audit) process, as implemented by CGG according to section C.2 of this QATR, to effectively lead an assessment team, and to effectively organize and report results, including participation in at least one independent assessment or audit within the year preceding the date of qualification."</p>	<p>This alternative is consistent with the provisions approved by the NRC in <u>Safety Evaluation Report by the Office of Nuclear Reactor Regulation</u>, "Change to the Quality Assurance Program, Quality Assurance Program Consolidation," dated March 24, 2005 for Nuclear Management Company.</p>
<p>A grace period of 90 days may be applied to the performance of annual</p>	<p>This exception was taken from Ginna's Quality Assurance Program for</p>

CGG QATR EXCEPTIONS/ALTERNATIVES	SOURCE/BASIS FOR ACCEPTANCE
<p>evaluations of inspection, examination and testing personnel qualifications defined in <b>NQA-1-1994 Supplement 2S-1</b>, and annual lead auditor recertifications described in <b>Supplement 2S-3</b>. The grace period does not allow the “clock” for a particular activity to be reset forward. However, the “clock” for an activity is reset backwards by performing the activity early.</p>	<p>Station Operation, Revision 32. This was originally an exception to the provisions of ANSI N45.2.6-1978 (RG 1.58 Revision 1) and ANSI N45.2.23-1978 (RG 1.146 Revision 0) approved by the NRC in <u>Safety Evaluation by the Office of Nuclear Reactor Regulation</u> “Proposed Revision 25 to the Rochester Gas and Electric Corporation Quality Assurance Program for Station Operation, R.E. Ginna Nuclear Power Plant,” dated July 22, 1998.</p>
<p><b>A.7.3</b></p>	
<p><b>Regulatory Position C of Regulatory Guide 1.28, Revision 3</b>, endorses the basic and supplementary requirements of ANSI/ASME NQA-1-1983 and the ANSI/ASME NQA-1a-1983 Addenda. In place of the specific edition and addenda of NQA-1 addressed in the Regulatory Guide, CGG commits to implement the requirements of NQA-1-1994 Part I.</p>	<p>CGG is adopting ASME NQA-1-1994 Part 1 consistent with the provisions approved by the NRC in <u>Safety Evaluation by the Office of Nuclear Reactor Regulation</u> “Proposed Change to the Quality Assurance Program, Quality Assurance Program Consolidation, Exelon Generation Company, LLC and Amergen Energy Company, LLC,” dated December 24, 2002. CGG’s conformance to NQA-1-1994 Part I is documented in CGG QATR.</p>
<p>CGG does not commit to compliance with <b>Regulatory Position C.1 of Regulatory Guide 1.28, Revision 3</b>; instead of establishing three levels of qualification provided in NQA-1-1994 Nonmandatory Appendix 2A-1, CGG may establish initial qualification requirements and determine individual qualification through evaluation of education, training and experience, and through demonstration of capability in performing the type of inspections expected on the job.</p>	<p>This exception is consistent with the provisions approved by the NRC in <u>Safety Evaluation Report by the Office of Nuclear Reactor Regulation</u>, “Change to the Quality Assurance Program, Quality Assurance Program Consolidation,” dated March 24, 2005 for Nuclear Management Company.</p>
<p>The guidance of <b>Regulatory Guide 1.28, Revision 3, Regulatory Position C.3.2</b>, regarding external audits will also be implemented in the operational phase. CGG complies with <b>Regulatory Position C.3.2</b> with the exception that for <b>Regulatory Position C.3.2.2</b>, CGG may review the information described therein as it becomes available through its ongoing receipt inspection, operating experience, and supplier evaluation programs, in lieu of performing a specific evaluation on an annual basis. The results of the reviews are promptly considered for effect on a supplier’s continued qualification and adjustments made as necessary (including corrective actions, adjustments of supplier audit plans, and input to third party auditing entities, as warranted). Additionally, results are reviewed periodically to determine if, as a whole, they constitute a significant condition adverse to quality requiring additional action. A grace period of 90</p>	<p>This exception is consistent with the provisions approved by the NRC in <u>Safety Evaluation Report by the Office of Nuclear Reactor Regulation</u>, “Change to the Quality Assurance Program, Quality Assurance Program Consolidation,” dated March 24, 2005 for Nuclear Management Company.</p> <p>The 90-day grace period exception was taken from Ginna’s Quality Assurance Program for Station Operation, Revision 32. This was originally an exception to the provisions of Regulatory Guide 1.144, Revision 1, approved by the NRC in <u>Safety Evaluation by the Office of Nuclear Reactor Regulation</u> “Proposed Revision 25 to the Rochester Gas and Electric Corporation Quality Assurance Program for Station Operation, R.E. Ginna Nuclear Power Plant,” dated July 22, 1998.</p>

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<p>days may be applied to the performance of triennial supplier audits described in <b>Regulatory Position C.3.2.1</b>. The grace period does not allow the “clock” for a particular activity to be reset forward. However, the “clock” for an activity is reset backwards by performing the activity early.</p>	
<p>In lieu of the requirements of the last paragraph of <b>ANSI N45.2.4-1972 Section 6.2.1</b>, the calibration program at CGG does not use calibration stickers on installed plant instrumentation that contain the date of calibration and identity of person that performed the calibration. Calibrations of instruments are scheduled and tracked by a computer database.</p>	<p>This alternative is consistent with the provisions approved by the NRC in <u>Safety Evaluation Report</u> “Entergy Operations, Inc, Quality Assurance Program Consolidation,” dated November 6, 1998. This alternative is also consistent with the current quality assurance programs for Calvert Cliffs and Nine Mile Point.</p>
<p>NQA-1-1994 Part I contains quality assurance requirements equivalent to those of ANSI N18.7-1976/ANS-3.2, and CGG has included in this QATR the remaining “administrative controls” elements from ANSI N18.7-1976/ANS-3.2. Therefore, CGG does not commit to compliance with the requirements of ANSI N-18.7-1976/ANS-3.2 as endorse by <b>Regulatory Guide 1.33, Revision 2, Regulatory Position C</b>.</p> <p>CGG’s commitment to the applicable Regulatory Guides and associated standards listed in <b>Regulatory Position C.2 of Regulatory Guide 1.33, Revision 2</b>, is addressed within the CGG QATR. A number of these Regulatory Guides and standards have been incorporated into NQA-1-1994 Part I.</p> <p>In lieu of compliance with <b>Regulatory Position C.5 of Regulatory Guide 1.33, Revision 2</b>, CGG has established appropriate equivalent requirements within this QATR.</p>	<p>This alternative is consistent with the provisions approved by the NRC in <u>Safety Evaluation Report</u> by the Office of Nuclear Reactor Regulation, “Change to the Quality Assurance Program, Quality Assurance Program Consolidation,” dated March 24, 2005 for Nuclear Management Company.</p>
<p>In lieu of the six and twelve month audit frequencies specified in <b>Regulatory Position C.4 of Regulatory Guide 1.33, Revision 2</b>, CGG audits selected aspects of operational phase activities at a frequency commensurate with their safety significance in such a manner as to assure an audit of all safety-related functions is completed within a period of two years. (except as otherwise required in regulations) CGG’s audit program includes the elements listed in <b>Regulatory Position C.4</b>. In addition, A 90-day grace period may be applied to the 24-month frequency for performing internal audits. The grace period does not allow the “clock” for a particular activity to be reset forward.</p>	<p>Each CGG site currently has an exception to the six and twelve month audit frequencies specified in Regulatory Position C.4. The NRC most recently approved this exception for the Fitzpatrick and Indian Point Unit 3 Nuclear Plants in a <u>Safety Evaluation by the Office of Nuclear Reactor Regulation</u>, dated March 25, 1999.</p> <p>The 90-day grace period exception was taken from Ginna’s Quality Assurance Program for Station Operation, Revision 32. This was originally an exception to the provisions of ANSI N18.7-1972 approved by the NRC in <u>Safety Evaluation by the Office of Nuclear</u></p>

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<p>However, the "clock" for an activity is reset backwards by performing the activity early.</p>	<p><u>Reactor Regulation</u> "Proposed Revision 25 to the Rochester Gas and Electric Corporation Quality Assurance Program for Station Operation, R.E. Ginna Nuclear Power Plant," dated July 22, 1998.</p>
<p>CGG substitutes NQA-1-1994, Subpart 2.3 for N45.2.3 in its commitment to <b>Regulatory Guide 1.39, September 1977</b>. As noted in <b>Regulatory Position C.1</b>, other industry standards may be referenced; the commitment in this QATR to NQA-1, Subpart 2.3 includes commitment to those standards to the extent necessary to implement Subpart 2.3 requirements. If NRC guidance applies to those referenced standards, it is followed. <b>Regulatory Position C.2</b> indicates that the provisions of section 3.2.3 of N45.2.3 are not part of the Regulatory endorsement. As NQA-1, Subpart 2.3, section 3.2.3 has the same wording as N45.2.3; the Regulatory Position is applicable and will be followed in CGG's implementation of Subpart 2.3. <b>Regulatory Position C.3</b> indicates that the endorsed standard is "applicable for housekeeping activities during the operations phase that are comparable to those occurring during construction." This is addressed in section B.7 of the QATR, which also establishes any necessary exceptions or alternatives to the provisions of Subpart 2.3.</p>	<p>CGG is adopting ASME NQA-1-1994 Subpart 2.3 consistent with the provisions approved by the NRC in <u>Safety Evaluation of Proposed Change to the Quality Assurance Program, Quality Assurance Program Consolidation</u> for Dominion Nuclear Connecticut, Inc. and Virginia Electric and Power Company, dated September 9, 2005. The NRC staff found that NQA-1-1994 Subpart 2.3 contains equivalent requirements to Regulatory Guide 1.39, September 1977, and ANSI N45.2.3-1973.</p>
<p>CGG substitutes NQA-1-1994, Subpart 2.8 for N45.2.8 in its commitment to <b>Regulatory Guide 1.116, May 1977</b>. As noted in <b>Regulatory Position C.1</b>, other industry standards may be referenced; the commitment in this QATR to NQA-1, Subpart 2.8 includes commitment to those standards to the extent necessary to implement Subpart 2.8 requirements. If NRC guidance applies to those referenced standards, it is followed. <b>Regulatory Position C.3</b> recommends using Section 5 of N45.2.8 in conjunction with Regulatory Guide 1.68 for pre-operational, cold functional, and hot functional testing. While Section 5 of NQA-1, Subpart 2.8 provides the same requirements, it is anticipated that CGG plants, since they are already beyond these tests, will not need to implement Regulatory Guide 1.68. If testing in accordance with Regulatory Guide 1.68 becomes necessary, CGG will comply with the guidance of the Regulatory Guide 1.116 position. <b>Regulatory Position C.2</b> indicates that the endorsed standard should be "followed for those applicable operations phase activities that are comparable to activities occurring during the construction phase." This is addressed in section B.12 of this QATR, which also establishes any necessary exceptions or alternatives to the provisions of Subpart 2.8.</p>	<p>CGG is adopting ASME NQA-1-1994 Subpart 2.8 consistent with the provisions approved by the NRC in <u>Safety Evaluation of Proposed Change to the Quality Assurance Program, Quality Assurance Program Consolidation</u> for Dominion Nuclear Connecticut, Inc. and Virginia Electric and Power Company, dated September 9, 2005. The NRC staff found that NQA-1-1994 Subpart 2.8 contains equivalent requirements to Regulatory Guide 1.116, May 1977, and ANSI N45.2.8-1975.</p>

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<p>CGG commits to <b>Regulatory Guide 4.15, Revision 1, February 1979</b>, "Quality Assurance for Radiological Monitoring Programs (Normal Operations) – Effluent Streams and the Environment," with the following alternatives/exceptions:</p> <p>In lieu of plotting background parameters and setting predetermined control values for gamma spectroscopy instrumentation as described in <b>Regulatory Position C.6.2</b>, background results may be logged and evaluated to ensure the background does not bias reported results.</p> <p>The NRC's independent sampling and analysis program described in <b>Regulatory Position C.6.3.2</b> may not be performed.</p> <p>In lieu of performing source check calibrations at least once per 18 months as described in <b>Regulatory Position C.7</b>, CGG may perform these calibrations at least once per refueling interval.</p>	<p>CGG establishes a commitment to Regulatory Guide 4.15 in the QATR. Three exceptions are taken consistent with existing QA programs for radiological Monitoring Programs for effluent streams and the environment:</p> <p>Counting room procedures are based on industry best practices. CGG plots (i.e., graph paper) and trends backgrounds on all laboratory instrumentation with the exception that an alternate method may be used for gamma spectroscopy. In this case, an alternate but equally effective method may be implemented: Gamma isotopic backgrounds are counted routinely, and all nuclides are checked for the presence of contamination (i.e. a peak) to ensure each background for each nuclide does not impact any analysis result. If contamination is detected (i.e., a peak is identified), remedial action is taken. Adequacy and accuracy of results are checked in an Interlaboratory test program. Interlaboratory and Intralaboratory test data are carefully evaluated to determine bias. The NRC has previously evaluated this method of counting room performance for gamma spectroscopy and found it acceptable.</p> <p>The exception from the NRC's independent sampling and analysis program reflects the discontinuance of their Confirmatory Measurements Program.</p> <p>Regulatory Position C.7, "Quality Control for Continuous Effluent Monitoring Systems," states that sources that have been related to initial calibration should be used to check this initial calibration at least once per 18 months (normally during refueling outages). The typical industry refueling outage today is at a 24-month frequency. This change of frequency allows source check calibrations consistent with Technical Specification amendments such as the "Twenty Four Month Cycle Technical Specification Amendments for Calvert Cliffs Nuclear Power Plants Units 1 and 2," issued November 3, 1987 in the <u>Safety Evaluation by the Office on Nuclear Reactor Regulation</u>, and the intent of this Regulatory Guide.</p>
<p>In lieu of the 12-month, 24-month and 36-month fire protection and loss prevention audits described in <b>Generic Letter 82-21</b>, CGG will combine the scope of the three audits into one by performing a biennial audit of the facility fire protection program and implementing</p>	<p>This alternative is consistent with Ginna's Quality Assurance Program for Station Operation (QAPSO), Revision 32, and CCNPP's Quality Assurance Policy (QAP), Revision 59.</p>

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<p>procedures. The biennial requirement includes a fire protection equipment and program implementation inspection and audit utilizing either a qualified offsite licensed fire protection engineer or an outside qualified fire protection consultant.</p>	<p>This was originally an alternative reviewed and accepted by the NRC staff for Revision 21 of Ginna's QAPSO in the "10 CFR 50.54 Quality Assurance Program Change Review" dated March 22, 1995.</p> <p>The annual fire protection audit requirement was incorporated into the biennial fire protection audit at CCNPP in Revision 43 to the QAP. CCNPP's revised QAP was reviewed and accepted by the NRC staff in the "10 CFR 50.54 Quality Assurance Program Change Review" dated September 25, 1996.</p>
<p><b>B.4 Procurement Control</b></p>	
<p>For NQA-1-1994 Supplement 4S-1, Section 2.3, which requires procurement documents to require a quality program that complies with NQA-1, CGG may apply other nationally recognized and NRC endorsed quality standards, such as N45.2 or 10CFR50 Appendix B, as appropriate to the circumstances of the procurement.</p>	<p>This alternative is consistent with the provisions approved by the NRC in <u>Safety Evaluation Report by the Office of Nuclear Reactor Regulation</u>, "Change to the Quality Assurance Program, Quality Assurance Program Consolidation," dated March 24, 2005 for Nuclear Management Company.</p>
<p>For NQA-1-1994 Supplement 4S-1 and Supplement 7S-1, CGG will use the guidance contained in Generic Letter 89-02/EPRI NP-5652 to procure Commercial Grade Items in lieu of these requirements.</p>	<p>The NRC staff conditionally endorses EPRI NP-5652, "Guideline for the Utilization of Commercial Grade Items in Nuclear Safety Related Applications(NCIG-07)," in Generic Letter 89-02, "Actions to Improve the Detection of Counterfeit and Fraudulently Marketed Products,"</p>
<p>For NQA-1-1994 Supplement 7S-1, Section 8.1, documentary evidence that items conform to procurement requirements need not be available at the site prior to item installation, but will be available at the site prior to placing reliance on the item for its intended safety function.</p>	<p>This alternative is consistent with the provisions approved by the NRC in <u>Safety Evaluation Report by the Office of Nuclear Reactor Regulation</u>, "Change to the Quality Assurance Program, Quality Assurance Program Consolidation," dated March 24, 2005 for Nuclear Management Company.</p>
<p>For NQA-1-1994 Supplement 7S-1 Paragraph 8.2.4 states "...post-installation test requirements and acceptance documentation shall be mutually established by the Purchaser and Supplier." In exercising ultimate responsibility for its QA Program, CGG establishes post-installation test requirements, giving due consideration to supplier recommendations.</p>	<p>This alternative was taken from Nine Mile Point Nuclear Station's Quality Assurance Program Topical Report, Revision 18. This alternative was originally related to NQA-1-1983 and was approved by the NRC on 12/31/1985 with revision 1 to Niagara Mohawk Power Corporation QA Topical Report, NMPC-QATR-1.</p>
<p><b>B.7 Handling, Storage, and Shipping</b></p>	
<p><u>This alternative applies to Nine Mile Point Nuclear Station (NMPNS). NMPNS commits to ANSI/ASME NQA-2-1983 Part 2.2, "Quality</u></p>	<p>This alternative was taken from Nine Mile Point Nuclear Station's Quality Assurance Program Topical Report, Revision 18. This</p>

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<p>Assurance Requirements for Packaging, Shipping, Receiving, Storage, and Handling of Items for Nuclear Power Plants,” for nuclear safety-related activities pertaining directly to permanent plant modifications only. NQA-2-1983 Section 7.1 refers to NQA-2-1983 Part 2.15 for requirements related to handling of items. The scope of Part 2.15 includes hoisting, rigging and transporting of items for nuclear power plants. This scope exceeds the scope of the NRC’s original endorsement of ANSI N45.2.2 in Regulatory Guide 1.38, and establishes requirements for which there is no NRC regulatory position. In lieu of compliance with Part 2.15, NMPNS is committed to the requirements of applicable heavy load reports for Nine Mile Point Units 1 and 2 that have been approved by the NRC. Unit 2’s report is a part of the SAR (Appendix 9C). Unit 1’s is a separate report.</p>	<p>alternative was originally related to NQA-1-1983 and was approved by the NRC on 12/31/1985 with revision 1 to Niagara Mohawk Power Corporation QA Topical Report, NMPC-QATR-1.</p>
<p>In lieu of the five-level zone designation in NQA-1-1994 Subpart 2.3, CGG may base its control over housekeeping activities on a consideration of what is necessary and appropriate for the activity involved. The controls are effected through procedures or instructions. Factors considered in developing the procedures and instructions include cleanliness control, personnel safety, fire prevention and protection, radiation control and security. The procedures and instructions make use of standard janitorial and work practices to the extent possible.</p>	<p>This alternative is consistent with the provisions approved by the NRC in <u>Safety Evaluation Report by the Office of Nuclear Reactor Regulation</u>, “Change to the Quality Assurance Program, Quality Assurance Program Consolidation,” dated March 24, 2005 for Nuclear Management Company.</p>
<p><b>B.15 Records</b></p>	
<p><b>NQA-1-1994 Supplement 17S-1, section 4.2(b)</b> requires records to be firmly attached in binders or placed in folders or envelopes for storage in steel file cabinets or on shelving in containers. For hard-copy records maintained by CGG, the records are suitably stored in steel file cabinets or on shelving in containers, except that methods other than binders, folders or envelopes may be used to organize the records for storage.</p>	<p>This alternative is consistent with the provisions approved by the NRC in <u>Safety Evaluation Report by the Office of Nuclear Reactor Regulation</u>, “Change to the Quality Assurance Program, Quality Assurance Program Consolidation,” dated March 24, 2005 for Nuclear Management Company.</p>
<p>In lieu of the storage facility requirements of <b>NQA-1-1994 Supplement 17S-1 Section 4.4</b>, CGG allows the following alternative storage requirements for organizations other than the records management organization. Organizations that originate records and do not transfer them to the records management within 30 days of completion shall establish one of the following three controls as alternatives to the requirements specified for the records management</p>	<p>This alternative was taken from Calvert Cliffs Nuclear Power Plant’s Quality Assurance Policy, Revision 59. This alternative was originally related to ANSI N45.2.9-1976 and has been a part of Calvert Cliffs QA Policy since Revision 2, dated March 4, 1974.</p>

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<p>organization:</p> <p>1) Duplicate Storage - Either A or B.</p> <p>A. Within 30 days of completion of a record, a duplicate record file shall be established. This activity shall be controlled by procedures which provide for the following: (a) Assignment of responsibility for records; (b) Description of storage area; (c) Description of filing system; (d) An index of the filing system; (e) Rules governing access to and control of files; (f) Methods for maintaining control of and accountability for records removed from the file; (g) Method for filing supplemental information and disposing of superseded or obsolete records; (h) Method for preserving records to prevent deterioration; (i) Method for maintaining specially processed records that are sensitive to light, pressure, or temperature; (j) Transfer of duplicates to the records management organization within two years of completion of records.</p> <p>B. Make arrangements with at least one other department that receives a copy of each document to subject this other copy to the controls specified above.</p> <p>2) Fire-resistant Building Storage - Records shall be stored in steel cabinets located in a fire-resistant building or a non-combustible building with a fire suppression system. The procedural controls defined for duplicate storage shall be applied.</p> <p>3) Non-fire-resistant Building Storage - Within non-fire-resistant facilities, records shall be stored in UL one-hour-minimum fire-rated storage cabinets and be subject to the procedural controls defined for duplicate storage. CCNPP defines a Fire-resistant Building as follows: A facility constructed to resist the initiation or spreading of fire; non-combustible and/or fire-suppressive materials used; building certified as fire-resistant by a person who specializes in the technical field of fire prevention and fire extinguishing.</p>	
<p><u>This alternative applies to Calvert Cliffs Nuclear Power Plant.</u> In lieu of the reinforced concrete, concrete block, masonry, or equal construction requirements of NQA-1-1994 Supplement 17S-1, Section 4.4.1(a), the records vault is entirely enveloped by a structurally sound, fire resistive building. Second, the vault rests on a reinforced slab on grade and its walls extend fully to the underside of the structural deck. Third, the walls of the vault are constructed of gypsum wallboard on metal studs per Underwriters Laboratory Test Number U412, assuring the equivalent of 2-hour fire resistive construction. This is equal</p>	<p>These responses have been forwarded to the NRC by the CCNPP letter dated 02/11/83 from Robert G. Nichols, Sr. Facilities Project Administrator, Real Estate and Office Services Department, to Terry L. Harpster, Chief QA Branch, Division of QA, Safeguards and Inspection Programs, IE, USNRC. These responses have also been accepted by the NRC in their letter dated 04/22/83 from Walter P. Haass, Deputy Chief, QA Branch, Division of Quality Assurance, Safeguards, and Inspections Programs, Office of Inspection and Enforcement.</p>

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<p>construction to concrete block in terms of fire protection. The walls carry no structural load; hence, they provide equivalent structural integrity to that needed of concrete block. Supplement 17S-1 Section 4.4.1(b) requires floor and roof drainage control. If a floor drain is provided, a check valve (or equal) shall be included. In lieu of this requirement, the vault is contained within an environmentally protected building. As such, it has no roof, or need for floor drain.</p>	