CENG

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Constellation Energy EDF

QUALITY ASSURANCE TOPICAL REPORT

Revision 7

for

	Docket Nos.	License Nos.
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

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M. G. Korsnick
Acting President and
Chief Executive Officer

Constellation Energy Nuclear Group
Corporate Statement of Quality Assurance Policy

Constellation Energy Nuclear Group (CENG) 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, 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 10 CFR 50 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 10 CFR 71, 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 with10 CFR 72.

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.

M. G. Korsnick
Acting President and
Chief Executive Officer

Date: 10/7/13

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A. MANAGEMENT

A.1 METHODOLOGY

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

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 CENG operating philosophy, CENG 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 10 CFR 50 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 10 CFR 71.101(f) and 10 CFR 72.140(d).

It is CENG'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, CENG 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 10 CFR 50.54(a).

In establishing procedural controls, CENG 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, CENG 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 CENG 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 and Chief Executive Officer, CENG (CEO)

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 Senior Vice President - Nuclear Operations.

A.2.1.2 Senior Vice President - Nuclear Operations, Chief Operations Officer and Chief Nuclear Officer , CENG (COO/CNO)

This position has overall responsibility for the safe and reliable operation of the Company's nuclear stations including management, oversight and strategic support of the 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 Corporate Site Operations

An executive management position for operations support and technical services reports to the CNO and provides direction to the fleet plant general manager, nuclear safety and security manager, engineering manager, training manager, projects manager, nuclear fuels manager and the fleet strategies director. The plant general manager provides corporate oversight and support in the areas of operations, integrated work management, maintenance, production operations, radiation protection, chemistry, and safety and health. The nuclear safety and security manager provides the nuclear safety assurance function in maintaining NRC operating licenses, technical specifications and FSAR. This position also oversees Emergency Preparedness, Security, Licensing and Environmental activities ensuring full compliance with regulatory requirements and Company policies and procedures. The engineering manager provides corporate oversight and support for site engineering. This position is responsible for the engineering functions supporting design and construction activities and long-term nuclear operations. The training manager ensures qualified personnel operate and support the nuclear facilities. The projects manager is responsible for the implementation of 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 construction activities. Focus is on defined projects separate from ongoing routine engineering projects. The nuclear fuels manager is responsible for 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.2.1.4 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.2.2 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. Fleet or 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 Senior Vice President – Site Operations 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, corrective action, self-assessment, industry operating experience, 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 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.

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, asset management, and system engineering. Engineering programs responsibilities for special processes include performing nondestructive examinations, visual weld examinations, in-service inspection (ISI) and coatings inspections.

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.

A.2.2.6 Nuclear Safety & Security

A site management position reports to the SVP and is responsible for Emergency Preparedness, Security, Licensing and Environmental activities ensuring full compliance with regulatory requirements and Company policies and procedures.

A.2.2.7 Supply Chain

A site management position reports to a corporate management position (offsite) and functionally to the SVP. 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.2.2.8 Information Technology

A site management position reports to a corporate management position (offsite) and functionally to the SVP. 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, upgrade and repair of the Plant IT Process Systems and the IT related equipment at the emergency offsite facilities.

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

A.3 RESPONSIBILITY

All employees of CENG 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), CENG retains overall responsibility.

The QA program status, scope, adequacy and compliance with 10 CFR Part 50 Appendix B are regularly reviewed by CENG 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 10 CFR Part 50, Appendix B. This review consists of an audit, or a review equivalent to an audit, performed by NSRB members who are CENG employees and/or members from outside organizations.

CENG 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 within the scope of the QA program is undertaken by CENG 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 CENG'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 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, CENG 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 CENG 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, including the final responsibility for the overall evaluation of shutting down an operating unit.

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

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, CENG 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 CENG 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 10 CFR 50.120 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, CENG 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 the same as 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 being certified as Level I, II or III in accordance with Non-Mandatory Appendix 2A-1 of NQA-1-1994, personnel performing operations phase independent quality verification inspections, examinations, measurements, or tests on material, products or activities, that are in the same organization as that which performed the work, will be required to possess the same minimum level of qualification as that required for performing the task being verified. The verification shall be within the skills of these personnel and/or is addressed by procedures. These individuals will also be trained and certified to perform inspections in a manner consistent with a Level I quality inspector. The inspectors will be authorized to accept or reject the work being inspected. The results of inspections by these individuals will be reviewed by a certified Level II or higher quality inspector. These individuals will not be responsible for the planning of quality verification inspections and tests (i.e. establishing hold points and acceptance criteria in procedures, or determining who will be responsible for performing the inspections), evaluating inspection training programs, or certifying inspection personnel.

3. In lieu of Supplement 2S-2, CENG will follow the applicable standard cited in the latest version(s) of Sections III and XI of the ASME Boiler and Pressure Vessel Code approved by the NRC for use at CENG 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 audit process according to section C.2 of this QATR, and to effectively organize and report results, including participation in at least one nuclear audit within the year preceding the date of qualification.

Constellation Energy Nuclear Group describes this process in written procedures and shall evaluate and document the results of the demonstration."

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.

A.6 CORRECTIVE ACTION

CENG 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.

CENG 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, CENG commits to compliance with NQA-1-1994, Basic Requirements 15 and 16, and Supplement 15S-1.

The Employee Concerns Program provides CENG 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.

A.7 REGULATORY COMMITMENTS

A.7.1

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

1. 10 CFR Part 50, Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants"
2. 10 CFR Part 71, Subpart H, "Quality Assurance for Packaging and Transportation of Radioactive Material"
3. 10 CFR Part 72, Subpart G, "Quality Assurance for Licensing Requirements for the Independent Storage of Spent Nuclear Fuel and High-Level Radioactive Waste,"
4. 10 CFR Part 21, “Reporting of Defects and Non-Compliance"
5. General Design Criterion 1, of Appendix A to 10 CFR Part 50
6. 10 CFR 50.55a, “Codes and standards”
7. 10 CFR 50.59, “Changes, Tests and Experiments”
8. 10 CFR 55, “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, CENG 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” – CENG 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 10CFR 50.120 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) – CENG 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, CENG commits to

implement the requirements of NQA-1-1994 Part I. CENG's commitment to these requirements and any exceptions/alternatives to these requirements are addressed in this QATR.

b. CENG 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.

c. The guidance in Regulatory Position C.3.2 regarding external audits will also be implemented during the operational phase. CENG complies with Regulatory Position C.3.2 with the exception that for Regulatory Position C.3.2.2, CENG 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. If no items are received from a vendor in the course of a year, CENG will document a review of industry activity using the operating experience information from the INPO website, the NUPIC database, Part 21 Notifications, and/or contact the respective vendor to inquire on any QA program changes. Vendors may be removed from the Approved Vendor's List either because of re-evaluation, which resulted in removal, or due to inactivity.

   A grace period of 90 days may be applied to the performance of triennial supplier audits and annual evaluations described in Regulatory Position C.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.

d. CENG complies with Regulatory Position C.3.2 with the exception that:

   For Regulatory Position C.3.2.1, when procuring Commercial Grade calibration services from calibration laboratories accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) or American Association for Laboratory Accreditation (A2LA), the accreditation process and accrediting body may be credited with carrying out a portion of CENG's duties of verifying acceptability and effective implementation of the calibration service supplier's QA program. In lieu of performing a Commercial Grade supplier survey, an in-process surveillance or accepting one performed by another licensee, a documented review of the supplier's accreditation shall be performed by CENG. This review shall include, at a minimum, verification of all of the following: (1) The accreditation is to ANSI/ISO/IEC 17025; (2) The accrediting body is either NVLAP or A2LA. Continued acceptability of the A2LA alternative is contingent on NVLAP recognition through the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (MRA); (3) The published scope of accreditation for the calibration laboratory covers the needed measurement parameters, ranges, and uncertainties. (Procured services must be within the accredited scope of the NVLAP or A2LA certificates.)

5. Safety/Regulatory Guide 1.29, Revision (site-specific) "Seismic Design Classification" – CENG 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

CENG 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. CENG 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 CENG 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 CENG has included in this QATR the remaining "administrative controls" elements from ANSI N18.7-1976/ANS-3.2. Therefore, CENG 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, CENG 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. CENG'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. CENG 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, CENG 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). Constellation Energy Nuclear Generation Group'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, CENG has established appropriate equivalent requirements within this QATR.

8. Regulatory Guide 1.36, Revision (site-specific), "Nonmetallic Thermal Insulation for Austenitic Stainless Steel" – CENG 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) – CENG 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 CENG'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) – CENG 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 CENG 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) – CENG 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.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, which also establishes any necessary exceptions or alternatives to the provisions of Subpart 2.8.

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 CENG site. Sites may use this guidance to assist in establishing the lists of equipment to which this QA program applies, or for other purposes.

17. Regulatory Guide 1.152, Revision 0, November 1985, "Criteria for Programmable Digital Computer System Software in Safety-Related Systems of Nuclear Power Plants" - CENG does not make a commitment to Regulatory Guide 1.152. CENG 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) – CENG 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 CENG plants are committed to CMEB 9.5-1. CENG 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" – CENG 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, CENG 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" – CENG 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 CENG choose electronic media storage as a means of maintaining required records, CENG will comply with the guidance of this Regulatory Issue Summary.

23. Generic Letter 82-21, "Technical Specification for Fire Protection Audits." In lieu of the 12-month, 24-month, and 36-month fire protection and loss prevention audits, CENG 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 audit includes all the required elements of the 12, 24, and 36 month audits, including the use of an outside qualified fire protection consultant.

24. Generic Letter 91-05 (April 1991) – CENG commits to compliance with the guidance regarding licensee commercial-grade procurement and dedication programs.

B. PERFORMANCE VERIFICATION

B.1 METHODOLOGY

Personnel who work directly or indirectly for CENG 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. CENG 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

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, CENG 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; <u>or</u> (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.

In establishing its program for design verification, CENG 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, CENG 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, CENG 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 and annual evaluations 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. CENG 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 CENG plants are not required to be evaluated or audited.

Procurement of safety-related items and services from suppliers is permitted when CENG 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. CENG'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 10 CFR 21 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, CENG 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, CENG may accept vendors having a documented quality assurance program that implements the applicable requirements of ASME NQA-1-1994, or another NRC endorsed standard that has shown to be equivalent to NQA-1-1994. Vendors shall be required to have a documented quality assurance program that implements the applicable requirements of 10CFR50 Appendix B.
2. For NQA-1-1994 Supplement 4S-1 and Supplement 7S-1, CENG will use the guidance contained in Generic Letters 91-05 and 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, CENG establishes post-installation test requirements, giving due consideration to supplier recommendations.

5. CENG may procure Commercial Grade calibration services from domestic (US) calibration laboratories accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) or American Association for Laboratory Accreditation (A2LA) in lieu of a CENG or 3rd party commercial grade survey or in-process surveillances provided all of the following are met:

   a. The accreditation is to ANSI/ISO/IEC 17025.

   b. The accrediting body is either NVLAP or A2LA. Continued acceptability of the A2LA alternative is contingent on NVLAP recognition through the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (MRA).

   c. The published scope of accreditation for the calibration laboratory covers the needed measurement parameters, ranges, and uncertainties. (Procured services must be within the accredited scope of the NVLAP and/or A2LA certificates.)

   d. The procurement documents impose additional technical and administrative requirements, as necessary, to satisfy CENG QA program technical requirements. (Procurement documents shall explicitly require that the calibration certificate/report include identification of the laboratory equipment/standards used.)

   e. The procurement documents require reporting as-found calibration data when calibration items are found to be out-of-tolerance.

   f. This alternative method is applicable to sub-suppliers of calibration service suppliers, provided the above conditions are met.

B.5 PROCUREMENT VERIFICATION

CENG 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 10 CFR Part 50 Appendix B and the contract.

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

B.6 IDENTIFICATION AND CONTROL OF ITEMS

CENG 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, CENG commits to compliance with NQA-1-1994, Basic Requirement 8 and Supplement 8S-1.

B.7 HANDLING, STORAGE, AND SHIPPING

CENG 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, CENG commits to compliance with NQA-1-1994, Basic Requirement 13 and Supplement 13S-1. CENG sites also commit to items 1 <u>or</u> 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. <u>This alternative applies to Nine Mile Point Nuclear Station (NMPNS)</u>. 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.

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, CENG 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, CENG 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.

CENG 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, CENG 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

CENG 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, in-service 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, CENG commits to compliance with NQA-1, 1994, Basic Requirement 11 and Supplement 11S-1.

B.9 MEASURING AND TEST EQUIPMENT CONTROL

CENG 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, CENG commits to compliance with NQA-1, 1994, Basic Requirement 12, Supplement 12S-1.

B.10 INSPECTION, TEST, AND OPERATING STATUS

CENG 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, CENG commits to compliance with NQA-1, 1994, Basic Requirement 14.

B.11 SPECIAL PROCESS CONTROL

CENG 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, CENG 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 10 CFR 50.55a.

B.12 INSPECTION

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

B.13 CORRECTIVE ACTION

CENG 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 probability of satisfactory performance. Consideration is given to phased replacement to permit in-service 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, CENG commits to compliance with NQA-1, 1994, Basic Requirements 15 and 16, and Supplement 15S-1.

B.14 DOCUMENT CONTROL

CENG 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. CENG 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, 10 CFR 50.59 and/or 10 CFR 72.48 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, CENG commits to compliance with NQA-1, 1994, Basic Requirement 6 and Supplement 6S-1.

B.15 RECORDS

CENG 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 10 CFR 71 or 72, these provisions address the specific requirements of sections 71.135 and 72.174.

CENG uses the list of records in 10 CFR 71.135, 10 CFR 72.174, 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 CENG choose electronic media storage as a means of maintaining required records; CENG will comply with NRC guidance in RIS 2000-18. Electronic records will be kept on magnetic and/or optical storage media.

In establishing provisions for records, CENG 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 CENG, 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, CENG 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:
   a) Duplicate Storage - Either 1 or 2.

1. 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.
2. 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.

b) Fire-resistant Building Storage - Records shall be stored in steel cabinets located in a fire-resistant building or non-combustible building with a fire suppression system. The procedural controls defined for duplicate storage shall be applied.

c) 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.

Constellation Energy Nuclear Group defines a fire resistant building as follows: A facility constructed to resist the initiation or spreading of fire; fire-suppressive and/or non-combustible materials used; building certified as fire-resistant by a person who specializes in the technical field of fire prevention and fire extinguishing.

3. <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 Supplement 17S-1, Section 4.4.1(a), the records vault is entirely enveloped by a structurally sound, fire-resistive building. The vault rests on a reinforced slab on grade and its walls extend fully to the underside of the structural deck. 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

CENG 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

CENG 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, CENG commits to compliance with the requirements of NQA-1 1994, Supplement 11S-2 to establish the appropriate provisions.

C. ASSESSMENT

C.1 METHODOLOGY

Personnel responsible for the 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. 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. 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 assessments are used to identify safety concerns and improve performance. 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 assessments. Improvement needs identified by 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 assessments and evaluations at other facilities. Results of assessments, observations, corrective actions, and independent oversight assessments are reviewed for underlying problems that need resolution. 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.

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 10 CFR Part 50, 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 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, COO 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 CENG.

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 – Nuclear Operations, Chief Nuclear Officer and Chief Operations Officer
4. The President and Chief Executive 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, CENG commits to compliance with NQA-1-1994, Basic Requirement 18 and Supplement 18S-1.

APPENDIX A

REVIEW FUNCTIONS OF THE PORC, NSRB, AND ISEG

CENG 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 CENG 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.

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 10 CFR 50.59 and 10 CFR 72.48 screening program, (2) changes to the quality program determined to be reductions in the commitment to quality under the provisions of 10 CFR 50.54(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 10 CFR 50.59, 10 CFR 50.92, or 10CFR 72.48 requires a license amendment or requires a significant hazards consideration determination.

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 (i.e. any of those conditions specified in 10CFR50.73).

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.

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, which 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.

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.

APPENDIX B

PROCEDURES

CENG 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, CENG 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 CENG; 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.

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

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.

APPENDIX C

DEFINITIONS

CENG 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.

Assessment: assessing the level of performance, or output of an activity or organization, as compared to management expectations and industry standards of excellence. Recommendations are documented to achieve improvements in the assessed area.

Audit: a planned and documented activity performed to determine by investigation, examination, or evaluation of objective evidence the adequacy of and compliance with established procedures, instructions, drawings, and other applicable documents, and the effectiveness of implementation. An audit should not be confused with inspection activities performed for the sole purpose of process control or product acceptance.

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 Assessment: the process used to provide ongoing independent evaluation and communication of results to management on program performance, trends, and management effectiveness.

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. 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

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.

Self-Assessment: an internal evaluation of the level of performance, or output of an activity or organization, as compared to management expectations and industry standards of excellence. Recommendations are documented to achieve improvements in the assessed area.

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.

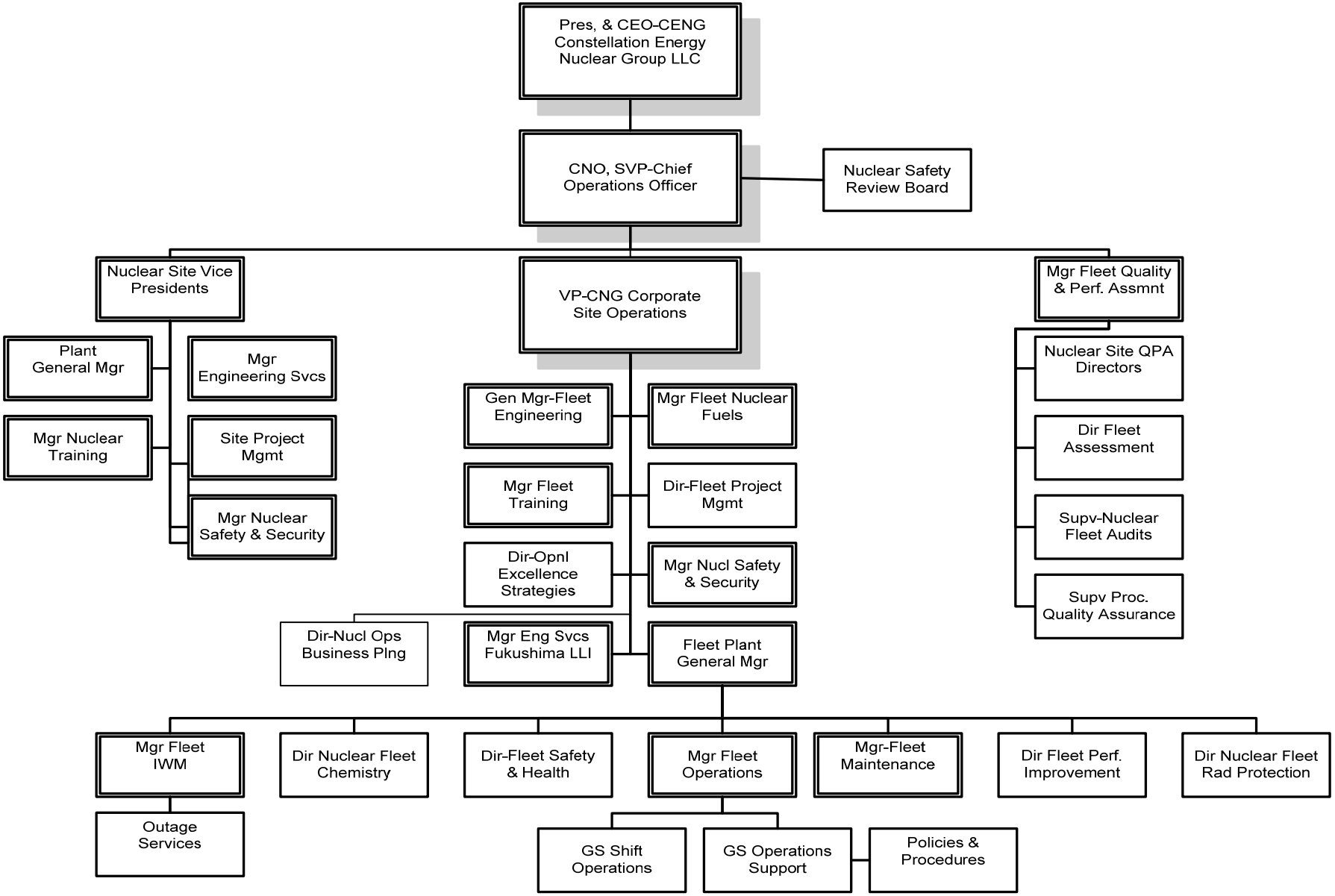
APPENDIX D

OPERATIONS PHASE ACTIVITY RECORDS

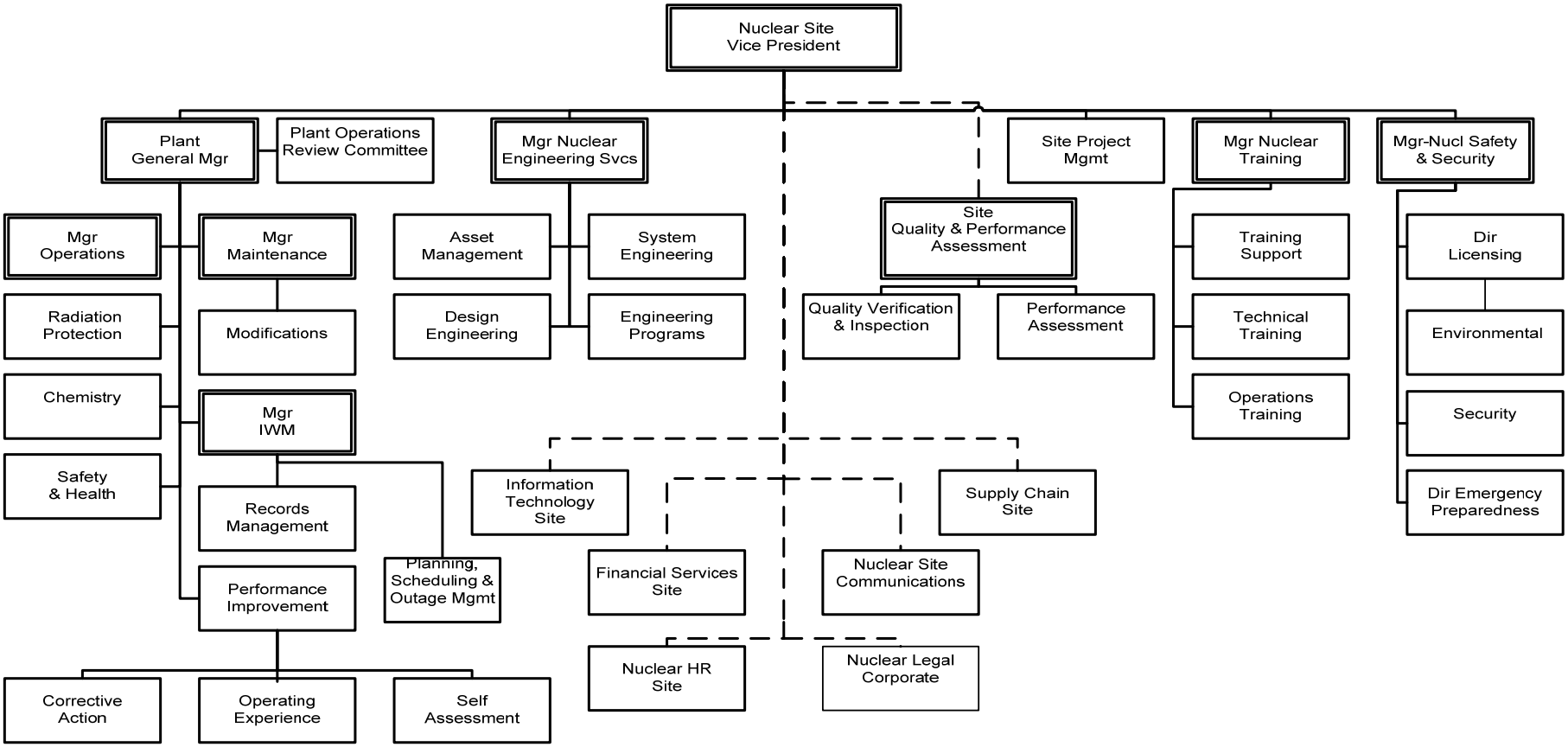
The following table provides a list of operations phase nonpermanent and lifetime records and their respective retention times. These records retention requirements are in addition to those described in Section B.15 of this QATR.

Records Description	Retention Time
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 10 CFR 50.59 or 10 CFR 72.48.	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



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



Dotted lines represent matrixed relationships