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November 12, 2024
XO1-24-007

ATTN: Document Control Desk
US Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: Presentation Materials for Energy Northwest Pre-Application Meeting

This letter transmits presentation materials for the subject meeting between Energy Northwest (EN) and Nuclear Regulatory Commission (NRC) Staff to be held on November 18, 2024.

Sincerely,

Signed by:
Lisa Williams
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Lisa Williams
Operations, Licensing, Environmental Manager, New Nuclear Development

Attachment - Presentation Materials for EN Pre-Application Meeting
Attachment - DRAFT: Quality Assurance Program Description (QAPD)

cc:
Greg Cullen
Ken Langdon

ENERGY NORTHWEST

Quality Assurance Program Pre-Submittal

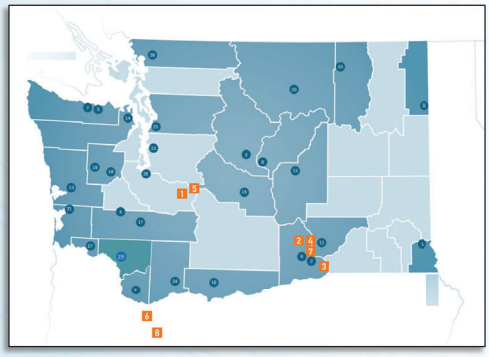
EN/NRC Meeting

11/18/24

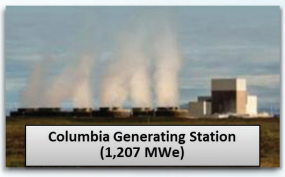
Lisa Williams
Ops, Licensing, Environ Manager

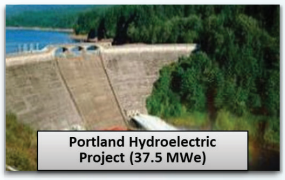
Don Gregoire
Licensing Manager

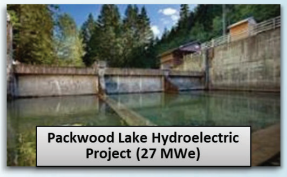
Introduction

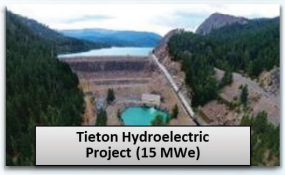


- Chartered in 1957 as a joint operating agency of the state of Washington
- Consortium of public utilities from across Washington state.
- Own and/or operate eight generation projects including Columbia Generating Station (Columbia)









Scope and Standards

Energy Northwest EN New Nuclear Quality Assurance Program (QAP)

Scope

- Construction Permits for all new nuclear projects developed by Energy Northwest
- QAP for design and construction
- Includes, but not limited to, the following activities:

Designing	*Cleaning*	*Constructing*	*Testing*	*Training*
Siting	*Handling*	*Erecting*	*Maintaining*	
Procuring	*Shipping*	*Installing*	*Repairing*	
Fabricating	*Receiving*	*Inspecting*	*Modifying*	

Energy Northwest New Nuclear QAP Standards

NRC

- Regulatory Guide 1.28, Quality Assurance Program Criteria (Design and Construction), Revision 6

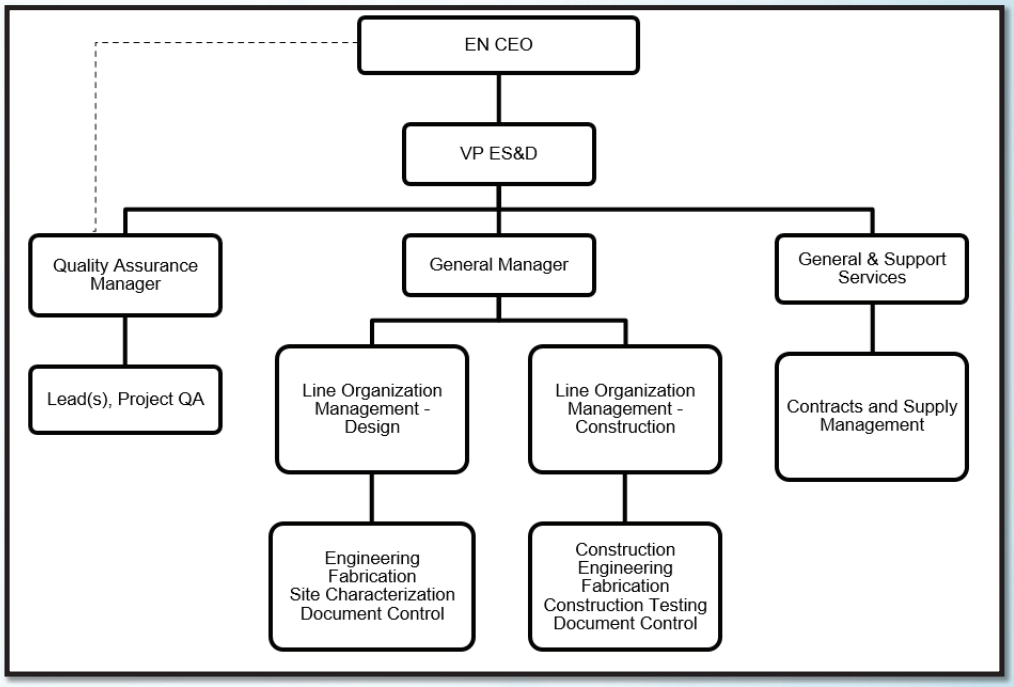
Industry

- ASME NQA-1-2022, Quality Assurance Requirements for Nuclear Facility Applications as endorsed by RG 1.28, Rev 6

Organization

1. Organization

- **VP Energy Services & Development (VP ES&D)**
  - Responsible for all aspects of design and construction
- **QA Manager**
  - Responsible for implementation and effectiveness of QAP
  - Direct access to CEO on all matters of quality/safety
- **Line Organization Managers**
  - Functional responsibility for execution of QAP



Exceptions and Clarifications

Summary of NQA-1 Requirement Exceptions/Clarifications

- Criterion 1 – none
- **Criterion 2 - yes**
- Criterion 3 – none
- **Criterion 4 – yes**
- Criterion 5 – none
- Criterion 6 – none
- **Criterion 7 – yes**
- Criterion 8 – none
- Criterion 9 - none
- Criterion 10 – none
- Criterion 11 – none
- Criterion 12 – none
- **Criterion 13 – yes**
- Criterion 14 – none
- Criterion 15 – none
- Criterion 16 – none
- Criterion 17 – none
- Criterion 18 - none

Criterion 2 NQA-1 Exception/Clarification

- **Requirement**

  302 Inspection and Test
  Any person who has not performed inspection or testing activities in the qualified area for a period of 1 yr shall be reevaluated

- **Clarification**

  Section 300 requires any person who has not performed inspection or testing activities in the qualified area for a period of one year shall be reevaluated. A 90-day grace period can be applied to this activity.

- **Basis**

  Provides flexibility consistent with SRP 17.5.II.B.10 allowance

Criterion 2 NQA-1 Exception/Clarification (continued)

- **Requirement**

  303.5 Maintenance of Proficiency
  Based on annual assessment, management may extend the qualification, require retraining, or require requalification.

  402 Lead Auditor Personnel
  Additional requirements to those listed in para. 400 of this Requirement shall include the following: (g) annual assessment of proficiency maintenance

- **Clarification**

  Sections 300 and 400 require that an annual assessment be performed of each lead auditor's qualification. A 90-day grace period can be applied to this activity.

- **Basis**

  Provides flexibility consistent with SRP 17.5.II.B.10 allowance.

Criterion 2 NQA-1 Exception/Clarification (continued)

- **Requirement**

  401 Inspection and Test Personnel
  Additional requirements to those listed in para. 400 of this Requirement shall include the following:
  (e) date of certification/recertification
  (g) certification expiration

- **Exception/Clarification**

  Section 401(g) requires the date of certification expiration be included on the qualification record. New Nuclear considers the certification expiration date to be the date from the certification or recertification date plus the certification interval time and its inclusion on the qualification record is optional.

- **Basis**

  Certification expiration is redundant to recertification date. This is consistent with NEI 11-04, Nuclear Generation Quality Assurance Program Description, Section 2.7.

Criterion 4 NQA-1 Exception/Clarification

- **Requirement**

  100 General
  To the extent necessary, procurement documents shall require Suppliers to have a quality assurance program consistent with the applicable requirements of this Standard.

- **Clarification**

  With regard to service performed by a supplier, procurement documents may allow the supplier to work under the New Nuclear QAP, including implementing procedures, in lieu of the supplier having its own QAP.

- **Basis**

  Allows for flexibility consistent with previously approved clarifications by the NRC (Ref TVA New Nuclear QAPD)

Criterion 4 NQA-1 Exception/Clarification (continued)

- **Requirement**

  300 Procurement Document Review
  A review of the procurement documents, and changes thereto, shall be made and documented prior to award to assure that documents transmitted to prospective Supplier(s) include appropriate provisions to assure that items or services will meet the specified requirements.

  400 Procurement Document Changes
  Procurement document changes affecting the technical or quality assurance program requirements shall be subject to the same degree of control as utilized in the preparation of the original documents

- **Clarification**

  Sections 300 and 400 of Requirement 4 require the review of procurement documents and changes thereto to ensure the inclusion of the appropriate technical and Quality Assurance Program requirements prior to contract award. New Nuclear may satisfy this requirement through the review of the procurement specification, when the specification contains the technical and quality assurance requirements of the procurement.

- **Basis**

  Allows for flexibility consistent with previously approved clarifications by the NRC (Ref TVA New Nuclear QAPD)

Criterion 4 NQA-1 Exception/Clarification (continued)

- **Requirement**

  202 Technical Requirements
  Technical requirements shall be specified in the procurement documents.

  203 Quality Assurance Program Requirements
  Quality assurance program requirements shall be specified in the procurement document

- **Clarification**

  Procurement documents for Commercial Grade Items that will be procured for use as safety-related items shall contain technical and quality requirements such that the procured item can be appropriately dedicated in accordance with the QAPD, Section 7, “Control of Purchased Material, Equipment and Services.”

- **Basis**

  Supports efficient commercial dedication process. Allows for flexibility consistent with previously approved clarifications by the NRC (Ref TVA New Nuclear QAPD)

Criterion 7 NQA-1 Exception/Clarification

- **Requirement**

  507 Acceptance of Services Only
  In cases involving procurement of services only, such as third-party inspection; engineering and consulting services; auditing; and installation, repair, overhaul, or maintenance work, the Purchaser shall accept the service by any or all of the following methods: (a) technical verification of data produced (b) surveillance and/or audit of the activity (c) review of objective evidence for conformance to the procurement document requirements

- **Clarification**

  Other 10 CFR Parts 50 and 52 licensees, Authorized Nuclear Inspection Agencies, National Institute of Standards and Technology, or other State and Federal agencies which may provide items or services to New Nuclear plants are not required to be evaluated or audited.

- **Basis**

  This is consistent with NEI 11-04, Nuclear Generation Quality Assurance Program Description, Section 7.2.

Criterion 7 NQA-1 Exception/Clarification (continued)

- **Requirement**

  501 General
  Where required by code, regulation, or contract requirement, documentary evidence that items conform to procurement requirements shall be available at the nuclear facility site prior to installation or use

- **Clarification**

  For Section 501, documents that may be stored in approved electronic media under New Nuclear or vendor control, not physically located on the plant site, but accessible from the respective nuclear facility site are considered as meeting the NQA-1 requirement for documents to be available at the site. Following completion of the construction period, sufficient as-built documentation will be turned over to support operations. The records management system will provide for timely retrieval of necessary records.

- **Basis**

  This is consistent with NEI 11-04, Nuclear Generation Quality Assurance Program Description, Section 7.2.

Criterion 7 NQA-1 Exception/Clarification (continued)

- **Requirement**

  Numerous "verification" references in Subpart 2.14

- **Clarification**

  For commercial grade items, quality verification requirements are established and described in New Nuclear documents to provide the necessary assurance an item will perform satisfactorily in service. These documents address determining the critical characteristics that ensure an item is suitable for its intended use, technical evaluation of the item, receipt requirements, and quality evaluation of the item. In addition, New Nuclear will assume 10 CFR 21 reporting responsibility for all items that it dedicates as safety-related.

- **Basis**

  This is consistent with NEI 11-04, Nuclear Generation Quality Assurance Program Description, Section 7.2.

Criterion 13 NQA-1 Exception/Clarification

- **Requirement**

  301 Cleanness Classification
  302 Cleanness Class Criteria

- **Clarification**

  Subpart 2.1, Section 301 and 302 establish criteria for classifying items into cleanness classes and requirements for each class. Instead of using the cleanness level system of Subpart 2.1, cleanness requirements may be established on a case-by-case basis, consistent with the other provisions of Subpart 2.1. Appropriate cleanliness controls for work on safety-related equipment are established to minimize introduction of foreign material and maintain system/component cleanliness throughout maintenance or modification activities, including documented verification of absence of foreign material prior to system closure.

- **Basis**

  This is consistent with NEI 11-04, Nuclear Generation Quality Assurance Program Description, Section 13.2.

Criterion 13 NQA-1 Exception/Clarification (continued)

- **Requirement**

  606 Storage Records
  Written records shall be prepared that include such pertinent information as …personnel authorized access to the storage location(s).

- **Clarification**

  Subpart 2.2, Section 606, "Storage Records:" This section requires written records be prepared containing information on personnel access. As an alternative to this requirement, documents establish controls for storage areas that describe those authorized to access areas and the requirements for recording access of personnel. However, these records of access are not considered quality records and will be retained in accordance with the administrative controls of the applicable plant.

- **Basis**

  This is consistent with NEI 11-04, Nuclear Generation Quality Assurance Program Description, Section 13.2.

Criterion 13 NQA-1 Exception/Clarification (continued)

- **Requirement**

  202 Classification of Cleanness
  Cleanness requirements for housekeeping activities shall be established on the basis of the following zone designations. The five zones are primarily for construction and generally not applicable for the operations…

- **Clarification**

  Subpart 2.3, Section 202 requires the establishment of five zone designations for housekeeping cleanliness controls. Instead of the five-level zone designation, control over housekeeping activities is based on a consideration of what is necessary and appropriate for the activity involved. The controls are implemented through procedures or instructions which, in the case of maintenance or modification work, are developed on a case-by-case basis. Factors considered in developing the procedures and instructions include cleanliness control, personnel safety, fire prevention and protection, and security.

- **Basis**

  This is consistent with NEI 11-04, Nuclear Generation Quality Assurance Program Description, Section 13.2.

Treatment of Non-Safety Related Requiring Special Treatment

Application of Quality Standards to NSRST SSCs

- List of applicable NSRST SSCs developed in accordance with:
  - NEI 18-04, Risk-Informed Performance-Based Technology Inclusive Guidance for Non-Light Water Reactor Licensing Basis Development, Rev 1
  - Regulatory Guide 1.233, Rev 0, Guidance For a Technology-Inclusive, Risk-Informed, and Performance-Based Methodology to Inform the Licensing Basis and Content of Applications for Licenses, Certifications, and Approvals for Non-Light-Water Reactors
- Applicable special treatments for NSRST SSCs to be specified in accordance with these standards

Questions

Number: EN-NN-QAPD-01	Major Rev: 000 Minor Rev: N/A Page: 1 of 55
Title: Quality Assurance Program Description (QAPD)	

DESCRIPTION OF CHANGES

Justification (required for major revision)

Page(s)	Description (including summary, reason, initiating document, if applicable)

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TABLE OF FIGURES

EXECUTIVE SUMMARY

This Quality Assurance Program Description (QAPD) for plant design and construction identifies the basis of the Energy Northwest (EN) New Nuclear (New Nuclear) Quality Assurance Program (QAP) and its application to the development of projects that EN may engage in. The QAPD describes methods and establishes Quality Assurance (QA) and administrative control requirements that meet 10 CFR 50 Appendix B, “Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants” and ASME NQA-1-2022, “Quality Assurance Requirements for Nuclear Facility Applications”. NUREG-0800 Section 17.5, “Quality Assurance Program Description - Design Certification Early Site Permit and New License Applicants”, ASME NQA-1-2022, “Quality Assurance Requirements for Nuclear Facility Applications,” Parts I and II, with specific reference to selected Parts III and IV appendices, as identified in this document, and Regulatory Guide 1.28, Revision 6, “Quality Assurance Program Criteria (Design and Construction)”, were used to prepare this QAPD.

Sections of the QAPD that are not yet utilized for active work are still in conformance with applicable sections of NQA-1-2022 though implementation may not be complete. Procedures and instructions that control activities will be developed before the commencement of those activities.

POLICY STATEMENT

New Nuclear shall design, procure, and construct the nuclear plants in a manner that will ensure technical, quality, and administrative requirements important to public health and safety are effectively implemented. These activities shall be performed in compliance with the requirements of the Code of Federal Regulations (CFR), the applicable United States Nuclear Regulatory Commission (NRC) Facility Construction Permit and applicable laws and regulations of the state and local governments.

The New Nuclear Quality Assurance Program (QAP) is the Quality Assurance Program Description (QAPD) provided in this document and the associated implementing documents. Together they provide for control of activities that affect the quality of safety-related nuclear plant structures, systems, and components (SSCs) and include all planned and systematic activities necessary to provide adequate confidence that such SSCs will perform satisfactorily in service.

The QAPD is the top-level policy document that establishes the manner in which quality is to be achieved and presents the overall philosophy regarding achievement and assurance of quality. Implementing documents assign more detailed responsibilities and requirements and define the organizational interfaces involved in conducting activities within the scope of the QAP. Senior management establishes overall expectations for effective implementation of the quality assurance program and is responsible for obtaining the desired end result. Compliance with the QAPD and implementing documents is mandatory for personnel directly or indirectly associated with implementation of the QAP.

It is the policy of New Nuclear:

1) To assure a high degree of availability and reliability of the nuclear plant(s) and documents as necessary for the accomplishment of review and monitoring of work activities by external agencies.

2) That activities prescribed in this QAPD be performed, documented and verified, in accordance with the requirements of the QAPD and its supporting implementing procedures.

3) That every employee has the responsibility and freedom to identify quality problems (i.e., conditions adverse to quality) without fear of repercussion.

4) That management will provide procedures, processes, tools, and commitment to continually improve the quality management system.

Signed,

Name
Title (Chief Executive Officer)
Energy Northwest
Date

PART I - INTRODUCTION

1.0 GENERAL

1.1 New Nuclear Quality Assurance Program Description (QAPD) is the top-level policy document that establishes the quality assurance policy and assigns major functional responsibilities for all quality-related activities conducted by or for New Nuclear. The QAPD describes the methods and establishes quality assurance (QA) and administrative control requirements that meet 10 CFR 50, Appendix B. The QAPD is based on the requirements and guidance from Parts I and II of ASME NQA-1-2022, “Quality Assurance Requirements for Nuclear Facility Applications.” The QAPD also includes selected sections from ASME NQA-1-2022 Parts III and IV, as specified in this document. Additionally, the QAPD follows the requirements and guidance of ASME NQA-1-2022, as endorsed by NRC Regulatory Guidance 1.28, Revision 6.

1.2 The quality assurance program (QAP) is defined by the NRC-approved regulatory document that describes the QA elements (i.e., the QAPD), along with the associated implementing documents. Sections of the QAPD that are not yet utilized for active work are still in conformance with applicable sections of NQA-1-2022 though implementation may not be complete. Procedures and instructions that control quality-related activities will be developed prior to commencement of those activities. Policies establish high-level responsibilities and authority for carrying out important administrative functions which are outside the scope of the QAPD. Procedures establish practices for certain activities which are common to all New Nuclear organizations performing those activities so that the activity is controlled and carried out in a manner that meets QAPD requirements. Procedures specific to a site, organization, or group establish detailed implementation requirements and methods, and may be used to implement policies or be unique to particular functions or work activities.

1.3 Specific organizational structures, roles, and responsibilities to design, license, and construct, and provide common services such as contracts, procurement, supply management, security, and personnel, are defined in project-specific documents.

2.0 SCOPE/APPLICABILITY

2.1 The QAPD applies to nuclear-related construction permit, construction, and pre-operational activities affecting the quality and performance of safety-related structures, systems, and components, including, but not limited to:

Designing	Shipping	Inspecting
Siting	Receiving	Testing
Procuring	Storing	Maintaining
Fabricating	Constructing	Repairing
Cleaning	Erecting	Modifying
Handling	Installing	Training

2.2 Safety-related SSCs, under the control of the QAPD, are identified by design documents. The technical aspects of these items are considered when determining program applicability, including, as appropriate, the item's design safety function. The QAPD may be applied to certain activities where regulations other than 10 CFR 50 establish QA requirements for activities within their scope.

2.3 The policy is to assure a high degree of availability and reliability of the nuclear plant(s) while ensuring the health and safety of workers and the public. To this end, selected quality assurance measures are also applied to certain equipment and activities that are not safety-related but support safe and reliable plant operations or where other NRC guidance establishes quality assurance requirements. Implementing documents establish appropriate quality assurance measures applicability.

2.4 Contractors, suppliers, or other organizations supporting New Nuclear are required to comply with this QAPD, or with their own programs as determined to include sufficient controls to meet the applicable requirements of 10 CFR 50, Appendix B.

2.5 The definitions provided in ASME NQA-1–2022, Part I, Introduction, Section 400, apply to select terms as used in this document.

PART II - QAPD DETAILS

1.0 ORGANIZATION

1.1 General

1.1.1 This section describes the organizational structure, functional responsibilities, levels of authority and interfaces for establishing, executing, and verifying QAPD implementation. The organizational structure includes corporate / support / off-site and on-site functions including interface responsibilities for multiple organizations that perform quality-related functions.

1.1.2 Organizational structure and lines of communication are depicted in Corporate and Project Organization Charts (where applicable). See Figure 1 – New Nuclear Organizational Chart for the representation of quality affecting roles described in this QAPD for the overall organization.

1.1.3 Roles and responsibilities of managers and employees are also described in implementing procedures. Functional responsibilities and levels of authority related to quality are described throughout this QAPD and in implementing procedures. Descriptions and documentation of interfacing organizations, including interface responsibilities for multiple organizations that perform quality-related functions, are provided in applicable implementing procedures. Implementing documents assign more specific responsibilities and duties, and define the organizational interfaces involved in conducting activities and duties within the scope of the QAPD. Organizational structure and implementing procedures ensure quality is achieved and maintained by those assigned responsibility for performing the work, and that quality achievement is verified by those not directly responsible for performing the work.

1.1.4 Management gives careful consideration to the timing, extent, and effects of organizational structure changes.

1.1.5 The Quality Assurance Manager is responsible for determining the size of the Quality Assurance staff commensurate with the duties and responsibilities assigned.

1.1.6 The following sections describe the reporting relationships, functional responsibilities, and authorities for organizations implementing and supporting the QAP.

1.2 Responsibilities and Authorities

1.2.1 Vice President, Energy Services & Development (VP-ES&D)

- The VP-ES&D is responsible for all aspects of design and construction of New Nuclear's nuclear projects. The VP-ES&D is also responsible for all technical and administrative support activities provided by New Nuclear and contractors. The VP-ES&D reports to the Energy Northwest CEO with respect to all matters.

1.2.2 General Manager (GM)

- The General Manager (GM) reports to the VP-ES&D and is responsible for the establishment and effective implementation of all activities controlled by the QAPD. The GM directs the planning and development of the New Nuclear staff and organization resources.

1.3 Management Responsibility for Quality

1.3.1 Managers responsible for executing any part of this QAPD may delegate any or all of the work to others but shall retain responsibility thereof. Quality is administered as a Line Organization function, such that all personnel are responsible for meeting QA requirements. “Line Organization” is defined as any department or organization that implements any portion of the quality program and includes, but is not necessarily limited to procurement, engineering, laboratory/testing, and records management & document control (RMDC). The management structure for each New Nuclear project is depicted in project-specific organization charts, a Project Quality Plan (PQP), and procedures for each project.

1.4 Quality Assurance

1.4.1 One individual is designated as the Quality Assurance Manager who is assigned primary responsibility for verifying that the QAPD is in place and is effective. The QA function is responsible for verifying that activities affecting quality have been performed in accordance with this QAPD and applicable implementing procedures. The VP-ES&D and Quality Assurance Manager ensure that adequate QA resources are applied to this oversight function. The Quality Assurance Manager may delegate QA program administration and verification to a senior QA person assigned to a New Nuclear project but shall maintain overall responsibility for those delegated duties. Regardless of the organizational structure, the person(s) assigned the responsibility for assuring effective execution of any portion of the QAPD, at any location where important to safety (to include safety-related) activities are being performed, shall have direct access to the levels of management necessary to perform the required functions without hindrance.

1.4.2 QA personnel have sufficient authority and are independent from cost and schedule, have access to work areas and organizational freedom to:

- Review item characteristics, process implementation, and other quality related information, and to identify items, services, and processes to confirm compliance with requirements and effectiveness.
- Identify quality problems.
- Initiate, recommend or provide solutions to quality problems.
- Verify implementation of solutions to problems.
- Ensure that further processing, delivery, installation or use is controlled until proper disposition of a non-conformance or other unsatisfactory condition has occurred.

1.4.3 The Quality Assurance Manager (and specifically delegated QA project personnel) is responsible for the following:

- Implementation of the QA program and referring appropriate matters to top management, in a timely manner
- Review of customer contract documentation to identify quality requirements for the project.
- Ensuring that procedures, QAPD and any necessary PQPs adequately address all customer requirements.
- Approval of Quality Assurance Manuals.
- Preparation and issuance of PQPs and QA procedures.
- Review of procurement documents to suppliers and subcontractors to ensure specification of appropriate quality requirements.
- Review of supplier and subcontractor quality submittals.
- Performance of audits and surveillance of supplier and subcontractor activities.
- Scheduling, participating in, and documenting the annual management review of the quality program to ensure its suitability and effectiveness. This may also be performed at the project level if specified in a PQP.

- Representing New Nuclear for quality evaluations conducted by external assessors and/or customers on New Nuclear's quality system.

- Providing adequate resources and/or trained personnel to satisfy the contractual requirements of projects executed by New Nuclear.

- Verifying that the quality system is adequately and effectively implemented and maintained through the performance of triennial audits, surveillance and reviews of engineering, design, procurement, and fabrication documents.

- Coordinating project responses to external audits and/or reviews.

1.4.4 The Quality Assurance Manager reports directly to the VP-ES&D, who ensures that required authority and organizational freedom are provided to meet the above stated responsibilities. QA is at the same organizational level as the highest Line Organization directly responsible for performing activities affecting quality. QA is sufficiently free from cost and schedule considerations associated with fulfilling the assigned responsibilities. QA is the owner of this QAPD.

1.4.5 If QA disagrees with any actions by the organization and is unable to obtain resolution, QA shall bring the matter to the attention of the EN CEO, who will determine the final disposition.

1.4.6 QA has "Stop Work" authority to curtail work at New Nuclear facilities or at Supplier locations, as deemed necessary in response to quality problems. Resumption of work after the quality problems have been appropriately addressed will be authorized by the VP-ES&D and may be delegated to QA.

1.5 Engineering and Technical Authority

1.5.1 Each project will have a designated individual who has responsibility for ensuring that equipment and facilities are engineered and designed in compliance with the project and customer requirements and in accordance with the requirements of this QAPD. This is accomplished by:

- Independent checking of completed design documents.

- Independent design reviews.

- Support of procurement in the identification of approved bidders.

- Performance of technical bid reviews and support of procurement in selection of suppliers.

- Support of procurement in the review of procurement documents, in conjunction with QA, to establish the necessary level of supplier surveillance and to identify supplier submittal requirements.

- Review of supplier-furnished design documents.

- Support and participation in customer contract reviews as required to ensure New Nuclear capabilities to meet the technical requirements specified in the contract.

1.5.2 Engineering provides design support and/or engineering personnel to individual projects. This organization is responsible for ensuring adequacy and consistency of qualification and training of engineers and other technical personnel; staffing projects as necessary with engineering and/or technical personnel; plant licensing and regulatory affairs; analytical software control; and for the technical adequacy of design for all projects. The PQP, if applicable, identifies roles and responsibilities for design on a particular project.

1.6 General & Support Services

1.6.1 This function is responsible for procurement of equipment and services for New Nuclear.

1.7 Contracts & Supply Management

1.7.1 This function is responsible for contracting and procurement functions within General & Support Services. This function is responsible for activities and interfaces related to external contracts and agreements, supplier technical management and procurement; and assists line organizations to implement contracts, including flow down of client QA requirements.

1.7.2 This function is responsible for assuring that subcontracted services are in full compliance with project, customer, and procurement document requirements by:

- Coordinating development of approved bidders' lists, as applicable.

- Commercial evaluation/validation of the bid/pricing data received.

- Coordination of bid reviews and subcontractor selection with QA and engineering.

- Participation in subcontractor qualification.

- Review of procurement documents with engineering and QA to establish the necessary level of supplier surveillance and to identify supplier quality control and document submittal requirements.

1.7.3 Customer requirements are evaluated during contract reviews. Contracts & Supply Management is responsible for:

- Coordinating contract reviews that shall include, as a minimum, contracts & supply management, engineering, project management, legal, and QA.

- Negotiating, executing, and distributing contract changes and amendments. All contract changes shall be reviewed by each affected discipline to ensure compliance in contract performance.

1.8 Line Organization Managers

- Establish, maintain, and control department work instructions and/or procedures to control the work and to satisfy the requirements of this QAPD.

- Ensure that all department personnel are aware of and that they comply with applicable procedures.

- Ensure personnel are qualified in accordance with written procedures and only perform activities for which they are qualified.

- Identify, evaluate, and record actual and potential quality problems with the department or at the interface with other departments. The CR/CAR (condition report / corrective action request) process should be used to manage this process.

- Control further processing, delivery, or installation of nonconforming product or service until the deficiency or unsatisfactory condition has been corrected. The NCR (non-conformance report) and/or the CR/CAR process should be used to manage this process.

- Interface with QA Management in implementing changes affecting the quality system.

- Provide support and access to QA for internal audits and/or surveillances of the quality system.

- Provide support and access, when required, for external audits of the quality system.

- Where project sites include operating units, Line Organization Management – Construction - communicates construction activities to operating unit management so they may evaluate and provide assurance that limiting conditions for operation are not exceeded as a result of construction activities.

1.9 Individuals

1.9.1 All personnel shall be responsible for the quality of their own work and for the self-checking of this work prior to any intra-departmental or inter-departmental checks that are required. All personnel also have the right and the responsibility to stop unsafe or non-compliant work or work that cannot be performed correctly due to inadequate procedures. QA or safety will evaluate the condition to authorize re-start or additional actions.

1.9.2 Supervisors shall ensure that those reporting to them are aware of the QAPD requirements and the procedures governing their current activities.

1.10 Quality Assurance Organizational Independence

1.10.1 Independence shall be maintained between the organization(s) performing the checking (quality assurance) functions and the organizations performing the functions. Design review/verification independence is described in Section 3.2.

1.11 NQA-1 Commitment

1.11.1 In establishing its organizational structure, New Nuclear commits to compliance with NQA-1-2022, Part I Requirement 1.

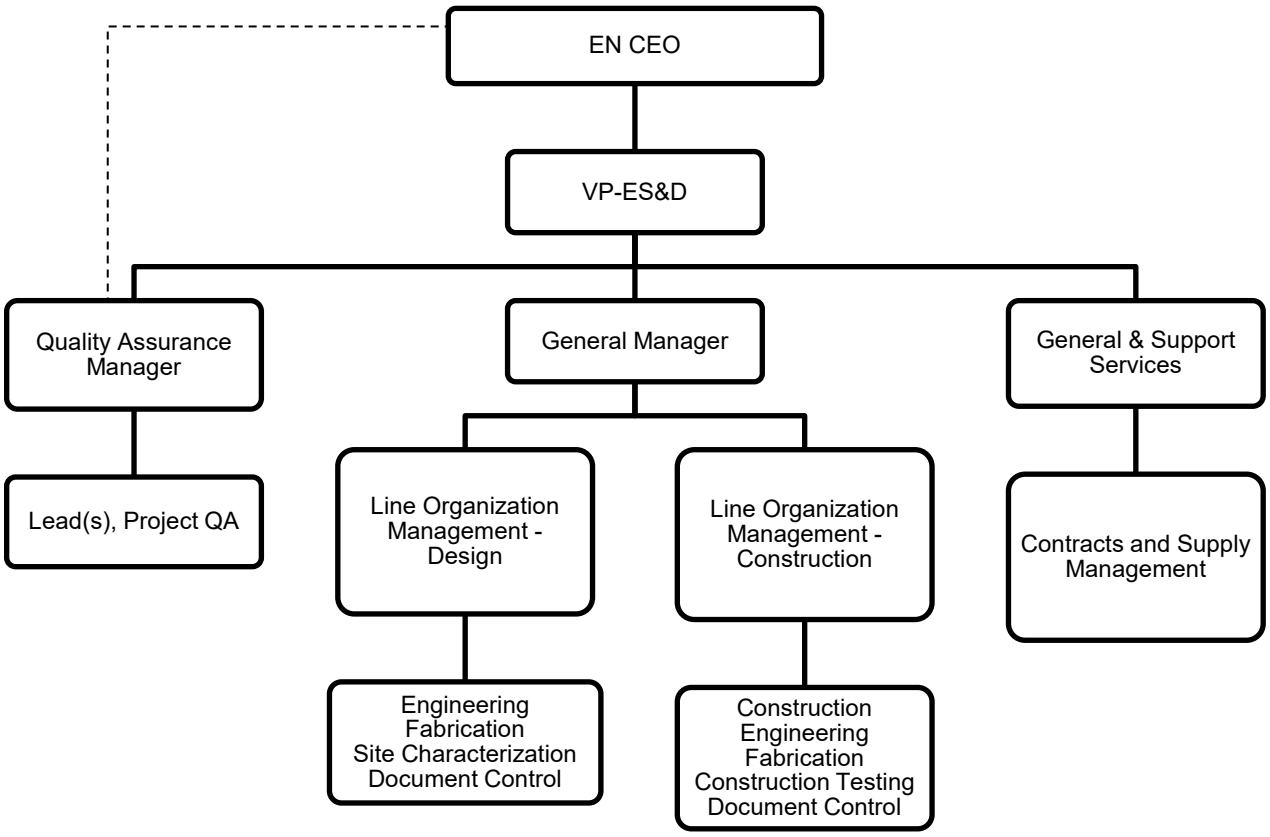

Figure 1 – New Nuclear Organizational Chart

NOTE: All Functions operate as needed and as defined in project-specific documents during both design and construction phases.

NOTE: Actual reporting relationships for each project are defined in project-specific documents.

2.0 QUALITY ASSURANCE PROGRAM

2.1 General

2.1.1 The necessary measures and governing procedures to plan, implement, and maintain the QAP as described in the QAPD are established. New Nuclear is committed to implementing the QAP in all aspects of work that are important to the safety of the nuclear plant(s) as described and to the extent delineated in the QAPD. The QAP shall include monitoring activities against acceptance criteria in a manner sufficient to provide assurance that the activities important to safety are performed satisfactorily. Further, the systematic process described herein ensures that suppliers of safety-related equipment or services meet the applicable requirements of 10 CFR 50, Appendix B. Senior management is regularly apprised of the adequacy of implementation of the QAP through the audit functions described in Section 18, Audits.

2.1.2 The objective of the QAP is to assure that nuclear power plants are designed and constructed in accordance with governing regulations and license requirements. The program is based on the requirements of ASME NQA-1-2022, "Quality Assurance Requirements for Nuclear Facility Applications," as endorsed by Regulatory Guide 1.28, Revision 6, and further described in this document. The QAP applies to those quality-related activities that involve the functions of safety-related structures, systems, and components (SSCs) associated with the design, fabrication, construction, and testing of the SSCs of the facility and to managerial and administrative controls important to the public health and safety. Examples of construction permit application program safety-related activities include, but are not limited to, site-specific engineering related to safety-related SSCs, site geotechnical investigations, site engineering analysis, and seismic analysis. A list or system that identifies SSCs and activities to which this program applies is maintained at New Nuclear facilities or by the Reactor Technology Provider. Cost and scheduling challenges must be addressed; however, they do not prevent proper implementation of the QAP.

2.1.3 Activities affecting quality will be accomplished under suitable controlled conditions, including:

1) The use of appropriate equipment,

2) A suitable environment for accomplishing the activity, (e.g., adequate cleanliness), and

3) Compliance with necessary prerequisites for the given activity.

2.1.4 Prospective Lead Auditors shall receive training to the extent necessary to assure auditing competence and maintain suitable proficiency.

2.1.5 Formal training and qualification programs documentation shall include the objective, content of the program, attendees, and date of attendance.

2.1.6 Delegated responsibilities may be performed under a supplier's or principal contractor's QAP, provided that the supplier or principal contractor has been approved as a supplier in accordance with the QAP. Periodic audits and assessments of supplier QA programs are performed to assure compliance with the supplier's or principal contractor's QAPD and implementing procedures. In addition, routine interfaces with the supplier's personnel provide added assurance that quality expectations are met.

2.1.7 For the construction permit application, the QAPD applies to those activities that can affect either directly or indirectly the safety-related site characteristics or analysis of those characteristics. In addition, the QAPD applies to engineering activities that are used to characterize the site or analyze that characterization.

2.1.8 New Nuclear is responsible for construction of new nuclear plants. Detailed engineering specifications and construction procedures will be developed as needed to implement the QAPD programs prior to commencement of preconstruction and construction activities. Examples of activities that could impact safety-related SSCs include impacts of construction to existing facilities and, for construction of a new plant, the interface between nonsafety-related and safety-related SSCs and the placement of seismically-designed backfill.

2.1.9 In general, the program requirements specified herein are detailed in implementing procedures that are either New Nuclear implementing procedures, or supplier implementing procedures governed by a supplier quality assurance program.

2.1.10 A grace period of 90 days may be applied to provisions that are required to be performed on a periodic basis, unless otherwise noted. Annual evaluations and audits that must be performed on a triennial basis are examples where the 90-day general period could be applied. The grace period does not allow the "clock" for a particular activity to be reset forward. The "clock" for an activity is reset backwards by performing the activity early. Audit schedules are based on the month in which the audit starts.

2.2 Responsibilities

2.2.1 Personnel who work directly or indirectly for New Nuclear are responsible for achieving acceptable quality in the work covered by the QAPD. Personnel performing verification activities are responsible for verifying the achievement of acceptable quality. Activities governed by the QAPD 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. The Quality Assurance Manager is responsible to verify that processes and procedures comply with QAPD and other applicable requirements, that such processes or procedures are implemented, and that management appropriately ensures compliance.

2.3 Delegation of Work

2.3.1 New Nuclear retains and exercises the responsibility for the scope and implementation of an effective QAP. Roles identified in Section 1, Organization, may delegate all or part of the activities of planning, establishing, and implementing the program for which they are responsible to others, but retain the responsibility for the program's effectiveness. Decisions affecting safety are made at the level appropriate based upon their nature and effect, with technical advice or review as appropriate.

2.4 Site-Specific Safety-Related Design Basis Activities

2.4.1 Site-specific safety-related design basis activities are defined as those activities, including sampling, testing, data collection, and supporting engineering calculations and reports, that will be used to determine the bounding physical parameters of the site. Appropriate quality assurance measures are applied.

2.5 Periodic Review of the Quality Assurance Program (Management Reviews)

2.5.1 Management of those organizations implementing the QA program, or portions thereof, shall assess the adequacy of that part of the program for which they are responsible to assure its effective implementation at least once each year or at least once during the life of the activity, whichever is shorter.

2.6 Issuance and Revision to Quality Assurance Program

2.6.1 Administrative control of the QAPD will be in accordance with 10 CFR 50.55(f). Changes to the QAPD are evaluated by the Quality Assurance Manager to ensure that such changes do not degrade safety for previously approved quality assurance controls specified in the QAPD. This document shall be revised as appropriate to incorporate additional QA commitments that may be established during the Construction Permit and Operating License application development process. New revisions to the document are, at minimum, reviewed by the Quality Assurance Manager prior to approval.

2.7 Personnel Training and Qualifications

2.7.1 Personnel assigned to implement elements of the QAPD shall be capable of performing their assigned tasks. To this end, formal indoctrination, training, certification and qualification as necessary are established and maintained for personnel performing, verifying, or managing activities within the scope of the QAPD to achieve initial proficiency, maintain proficiency, and adapt to technology changes, method, or job responsibilities. The indoctrination, training, and qualification programs are commensurate with scope, complexity, and importance of the activities; and include or address the following, as appropriate:

- Education, experience, and proficiency of the personnel receiving training.
- General criteria, technical objectives, requirements of applicable codes and standards, regulatory commitments, company procedures, and quality assurance program requirements.
- On-the-job training, if direct hands-on applications or experience is needed to achieve and maintain proficiency.

2.7.2 Sufficient managerial depth is provided to cover absences of incumbents.

2.7.3 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 procedures. Indoctrination includes the administrative and technical objectives, requirements of the applicable codes and standards, and the QAPD elements to be employed. Records of personnel training and qualification are maintained. Records for inspection and test personnel, non-destructive examination (NDE) personnel and lead auditors meet the specific record content requirements of NQA-1-2022, Part I Requirement 2.

2.7.4 Requirements for qualification of quality assurance lead auditors, quality assurance auditors, and technical specialists are prescribed in written procedures. Qualification requirements comply with NQA-1-2022, Part I Requirement 2 except as modified per section 2.8 below.

2.7.5 Requirements for qualification of inspectors, testers and NDE personnel are prescribed in written procedures. Qualification requirements comply with NQA-1-2022, Part I Requirement 2.

2.7.6 The minimum qualifications of the Quality Assurance Manager are that they hold an engineering or related science degree and a minimum of four years of related experience including two years of nuclear power plant experience, one year of supervisory or management experience, and one year of the experience performing quality verification activities. Special requirements shall include management and supervisory skills and experience or training in leadership, interpersonal communication, management responsibilities, motivation of personnel, problem analysis and decision making, and administrative policies and procedures. Individuals who do not possess these formal education and minimum experience requirements should not be eliminated automatically when other factors provide sufficient demonstration of their abilities. These other factors are evaluated on a case-by-case basis and approved and documented by senior management.

2.7.7 The minimum qualifications for the individuals responsible for supervising QA or QC personnel are that each has a high school diploma or equivalent and has a minimum of one year of experience performing quality verification activities. Individuals who do not possess these formal education and experience requirements should not be eliminated automatically when other factors provide sufficient demonstration of their abilities. These other factors are evaluated on a case-by-case basis and approved and documented by senior management.

2.7.8 The minimum qualifications of individuals that are part of the quality assurance organization responsible for planning, implementing, and maintaining the programs for the QAPD are that each has a high school diploma or equivalent and has a minimum of one year of related experience. Individuals who do not possess these formal education and minimum experience requirements should not be eliminated automatically when other factors provide sufficient demonstration of their abilities. These other factors are evaluated on a case-by-case basis and approved and documented by senior management.

2.8 NQA-1 Commitment / Exceptions

2.8.1 In establishing qualification and training programs, New Nuclear commits to compliance with NQA-1-2022, Part I Requirement 2, and Regulatory Guide 1.28 Revision 6, with the following clarifications and exceptions:

- Section 300 requires any person who has not performed inspection or testing activities in the qualified area for a period of one year shall be reevaluated. A 90-day grace period can be applied to this activity.

- Sections 300 and 400 require that an annual assessment be performed of each lead auditor's qualification. A 90-day grace period can be applied to this activity.

- Section 401(g) requires the date of certification expiration be included on the qualification record. New Nuclear considers the certification expiration date to be the date from the certification or recertification date plus the certification interval time and its inclusion on the qualification record is optional.

3.0 DESIGN CONTROL

3.1 General

3.1.1 A process to control the design, design changes, and temporary modifications (e.g., temporary bypass lines, electrical jumpers and lifted wires, and temporary setpoints) of items that are subject to the provisions of the QAPD has been established and implemented. The design process includes provisions to control design inputs, outputs, changes, interfaces, records, and organizational interfaces. Use of existing data will be performed in accordance with NQA-1-2022, Part IV, Subpart 4.2.3, Guidance on Qualification of Existing Data. These provisions assure that design inputs (such as design bases and the performance, regulatory, quality, and quality verification requirements) are correctly translated into design outputs (such as analyses, specifications, drawings, procedures, and instructions) so that the final design output contains or references appropriate acceptance criteria that can be related to the design input in sufficient detail to permit verification by inspection and test, as required. Deviations from acceptance criteria are controlled. Applicable design inputs shall be identified and documented. The design input shall be specified to the level of detail necessary to permit the design activities to be carried out in a correct manner and to provide a consistent basis for making design decisions, accomplishing design verification, and evaluating design changes. Appropriate quality standards shall be identified and documented, and their selection reviewed and approved.

3.1.2 Errors and deficiencies in approved design documents, including design methods (such as computer codes), that could adversely affect structures, systems, and components important to safety are documented and action is taken to ensure that all errors and deficiencies are corrected.

3.1.3 Design change processes and the division of responsibilities for design-related activities are detailed in procedures. Changes to design inputs, final designs, field changes, and temporary and permanent modifications to operating facilities are justified and subject to design control measures commensurate with those applied to the original design. The design control program includes interface controls necessary to control the development, verification, approval, release, status, distribution, and revision of design inputs and outputs. Design changes and disposition of nonconforming items as "use as is" or "repair" are reviewed and approved by the design organization or by other organizations so authorized by New Nuclear.

3.1.4 Design documents are reviewed by individuals knowledgeable in QA to ensure the documents contain the necessary QA requirements.

3.1.5 Design activities performed during the construction permit application development that are performed under contract by suppliers may be performed in accordance with their documented Quality Assurance Programs that meet the requirements of 10 CFR 50, Appendix B.

3.1.6 Design analysis shall be sufficiently detailed such that a technically competent person in the area of the subject matter can review and understand the analysis and verify the adequacy of results without recourse to the originator.

3.2 Design Verification

3.2.1 Design processes provide for documented design verification to ensure that items, computer programs, and activities subject to the provisions of the QAPD are suitable for their intended application, consistent with their effect on safety. Design changes are subjected to these controls, which include verification measures commensurate with those applied to original plant design.

3.2.2 Design verifications are performed by competent individuals or groups other than those who performed the original design but who may be from the same organization. The verifier shall not have taken part in the selection of design inputs, the selection of design considerations, or the selection of a singular design approach, as applicable. This verification may be performed by the originator's supervisor provided the supervisor did not specify a singular design approach, rule out certain design considerations, and did not establish the design inputs used in the design, or if the supervisor is the only individual in the organization competent to perform the verification. If the verification is performed by the originator's supervisor, the justification of the need is documented and approved in advance by management.

3.2.3 The extent of the design verification required is a function of the importance to safety of the item or computer program under consideration, the complexity of the design, the degree of standardization, the state-of-the-art, and the similarity with previously proven designs. This includes design inputs, design outputs, and design changes. Design verification procedures are established and implemented to assure that an appropriate verification method is used, the appropriate design parameters to be verified are chosen, the acceptance criteria are identified, and the verification is satisfactorily accomplished and documented. Verification methods may include, but are not limited to, design reviews, alternate calculations, and qualification testing. Testing used to verify the acceptability of a specific design feature demonstrates acceptable performance under conditions that simulate the most adverse design conditions expected for the item's intended use.

3.2.4 Design verification activities are normally completed before the design outputs are used by other organizations for design work, and before they are used to support other activities such as procurement, manufacture, or construction. When such timing cannot be achieved, the design verification is completed before relying on the item to perform its intended design or safety function.

3.3 Design Records

3.3.1 Records sufficient to provide evidence that the design was properly accomplished are maintained. These records include the final design output and any revisions thereto, as well as record of the important design steps (e.g., calculations, analyses and computer programs) and the sources of input that support the final output. Design records shall be sufficiently detailed such that a technically qualified individual in the subject area can review and understand the analysis and verify the adequacy of the results without recourse to the analysis preparer.

3.3.2 Records are retrievable and traceable to their applications.

3.3.3 Plant design drawings reflect the properly reviewed and approved configuration of the plant.

3.4 Computer Application and Digital Equipment Software

3.4.1 The QAPD governs the development, procurement, testing, maintenance, control, use, and retirement of computer applications and digital equipment software when used in safety-related applications. Computer program acceptability is pre-verified, or the results verified with the design analysis for each application. Pre-verified computer programs are controlled using a software configuration management process. New Nuclear and suppliers are responsible for developing, approving, and issuing procedures, as necessary, to control the use of such computer application and digital equipment software. The procedures require that the application software be assigned a proper quality classification and that the associated quality requirements be consistent with this classification. Each application software and revision thereto is documented and approved by authorized personnel. The QAPD is also applicable to the administrative functions associated with the maintenance and security of computer hardware where such functions are considered essential in order to comply with other QAPD requirements such as QA records.

3.5 Setpoint Control

3.5.1 Instrument and equipment setpoints that could affect nuclear safety shall be controlled in accordance with written instructions. As a minimum, these written instructions shall:

- Identify responsibilities and processes for reviewing, approving, and revising setpoints and setpoint changes originally supplied by a supplier or the plant's technical staff.
- Ensure that setpoints and setpoint changes are consistent with design and accident analysis requirements and assumptions.
- Provide for documentation of setpoints, including those determined operationally.
- Provide for access to necessary setpoint information for personnel who write or revise plant procedures, operate or maintain plant equipment, develop or revise design documents, or develop or revise accident analyses.

3.6 NQA-1 Commitment

3.6.1 In establishing its program for design control and verification, New Nuclear commits to compliance with NQA-1-2022, Part I Requirement 3, and NQA-1-2022 Part II Subpart 2.7 for computer software, Subpart 2.14 for commercial grade items and services, and Subpart 2.20 for subsurface investigations.

4.0 PROCUREMENT DOCUMENT CONTROL

4.1 General

4.1.1 The necessary measures and governing procedures to assure that purchased items, computer programs, and services are subject to appropriate quality and technical requirements are established. Procurement document changes shall be subject to the same degree of control as utilized in the preparation of the original documents. These controls include provisions such that:

- Applicable technical, regulatory, administrative, quality, and reporting requirements (such as specifications, codes, standards, tests, inspections, special processes, and 10 CFR 21) are invoked for procurement of items and services. 10 CFR 21 requirements for posting, evaluating, and reporting will be followed and imposed on suppliers when applicable. Applicable design bases and other requirements necessary to assure adequate quality shall be included or referenced in documents for procurement of items and services. To the extent necessary, procurement documents shall require suppliers to have a documented QA program that is determined to meet the applicable requirements of 10 CFR 50, Appendix B, as appropriate to the circumstances of procurements (or the supplier may work under the New Nuclear QAP.

4.1.2 Reviews of procurement documents shall be performed by personnel who have access to pertinent information and who have an adequate understanding of the requirements and intent of the procurement documents.

4.2 NQA-1 Commitment / Exceptions

4.2.1 In establishing controls for procurement, New Nuclear commits to compliance with NQA-1-2022, Part I Requirement 4, with the following clarifications and exceptions:

- With regard to service performed by a supplier, procurement documents may allow the supplier to work under the New Nuclear QAP, including implementing procedures, in lieu of the supplier having its own QAP.

- Sections 300 and 400 of Requirement 4 require the review of procurement documents and changes thereto to ensure the inclusion of the appropriate technical and Quality Assurance Program requirements prior to contract award. New Nuclear may satisfy this requirement through the review of the procurement specification, when the specification contains the technical and quality assurance requirements of the procurement.

- Procurement documents for Commercial Grade Items that will be procured for use as safety-related items shall contain technical and quality requirements such that the procured item can be appropriately dedicated in accordance with Section 7, “Control of Purchased Material, Equipment and Services.”

5.0 INSTRUCTIONS, PROCEDURES, AND DRAWINGS

5.1 General

5.1.1 The necessary measures and governing procedures to ensure that activities affecting quality are prescribed by and performed in accordance with instructions, procedures, or drawings of a type appropriate to the circumstances and which, where applicable, include quantitative or qualitative acceptance criteria to implement the QAP as described in the QAPD, are established. Such documents are prepared and controlled according to Section 6, Document Control. In addition, means are provided to disseminate to the staff instructions of both general and continuing applicability, as well as those of short-term applicability. Provisions are included for reviewing, updating, and canceling such procedures.

5.2 Procedure Adherence

5.2.1 New Nuclear's policy is that procedures are followed, and the requirements for use of procedures are established in administrative procedures. Where procedures cannot be followed as written, provisions are established for making changes in accordance with Section 6, Document Control.

5.2.2 Requirements are established to identify the manner in which procedures are to be implemented, including identification of those tasks that require:

- The written procedure to be present and followed step-by-step while the task is being performed.
- The user to have committed the procedure steps to memory.
- Verification of completion of significant steps, by initials or signatures or use of check-off lists.

5.2.3 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.

5.2.4 In cases of emergency, personnel are authorized to depart from approved procedures when necessary to prevent injury to personnel or damage to the plant. Such departures are recorded describing the prevailing conditions and reasons for the action taken.

5.3 Procedure Content

5.3.1 The established measures address the applicable content of procedures as described in the Introduction to Part II of NQA-1-2022. In addition, procedures governing tests, inspections, operational activities and maintenance will include as applicable, initial conditions and prerequisites for the performance of the activity.

5.4 NQA-1 Commitment

5.4.1 In establishing procedural controls, New Nuclear commits to compliance with NQA-1-2022, Part I Requirement 5.

6.0 DOCUMENT CONTROL

6.1 General

6.1.1 The necessary measures and governing procedures to control the preparation, issuance, and revision of documents that specify quality requirements or prescribe how activities affecting quality, including organizational interfaces, to ensure that correct documents are employed, are established. The following controls, including electronic systems used to make documents available, are applied to documents and changes thereto:

- The unique identification of controlled documents, including a revision control identifier.
- Specified distribution of controlled documents for use at the appropriate location.
- Identification of individual roles responsible for controlled document preparation, review, approval, and distribution.
- Review of controlled documents for adequacy, completeness, and approval prior to distribution.
- A method to ensure the correct document and revision is being used.
- A method to provide feedback from users to improve procedures and work instructions.
- Coordinating and controlling interface documents and procedures.

6.1.2 The types of documents to be controlled include:

- Drawings such as design, construction, installation, and as-built drawings.
- Engineering calculations.
- Design specifications.
- Purchase orders and related documents.
- Vendor-supplied documents.
- Audit, surveillance, and quality verification/inspection procedures.
- Inspection and test reports.

- Instructions and procedures for activities covered by the QAPD including design, construction, installation, operation (including normal and emergency operations), maintenance, calibration, and routine testing.
- Technical specifications.
- Nonconformance reports and corrective action reports.
- Audit Reports.

6.2 Review and Approval of Documents

6.2.1 Documents are reviewed for adequacy by qualified persons other than the preparer. During the construction phase, procedures for design, construction, and installation are also reviewed by the Quality Assurance organization to ensure quality assurance measures have been appropriately applied. The documented review signifies concurrence.

6.2.2 Prior to issuance or use, documents including revisions thereto, are approved by the designated authority. A listing of all controlled documents identifying the current approved revision, or date, is maintained so personnel can readily determine the appropriate document for use.

6.3 Changes to Documents

6.3.1 Changes to documents, other than those defined in implementing procedures as minor changes, are reviewed and approved by the same organizations that performed the original review and approval unless other organizations are specifically designated. The reviewing organization has access to pertinent background data or information upon which to base their approval. Minor changes to documents, such as inconsequential editorial corrections, do not require that the revised documents receive the same review and approval as the original documents. To avoid a possible omission of a required review, the type of minor changes that do not require such a review and approval and the persons who can authorize such a classification shall be clearly delineated in implementing procedures.

6.4 NQA-1 Commitment

6.4.1 In establishing provisions for document control, New Nuclear commits to compliance with NQA-1-2022, Part I Requirement 6.

7.0 CONTROL OF PURCHASED MATERIAL, EQUIPMENT, AND SERVICES

7.1 General

7.1.1 The necessary measures and governing procedures to control purchased items and services to assure conformance with specified requirements are established. Such control provides for the following as appropriate: source evaluation prior to contract award and selection, evaluation of objective evidence of quality furnished by the supplier, source inspection, audit, and examination of items or services.

7.2 Acceptance of Item or Service

7.2.1 The procurement of components, including spare and replacement parts, is subject to quality and technical requirements suitable for their intended service and to the purchaser's QA program requirements.

7.2.2 Measures to assess the quality of purchased items and services, whether purchased directly or through contractors, at intervals and to a depth consistent with the item or service importance to safety, complexity, quantity, and the frequency of procurement are established and implemented. Verification actions include testing, as appropriate, during design, fabrication, and construction activities. Verifications occur at the appropriate phases of the procurement process, including, as necessary, verification of activities of suppliers below the first tier.

7.2.3 Measures to assure the quality of purchased items and services include the following, as applicable:

- Items are inspected, identified, and stored to protect against damage, deterioration, or misuse.
- Prospective safety-related items and service suppliers are evaluated to assure only qualified suppliers are used. Qualified suppliers are audited on a triennial basis. In addition, if a subsequent contract or a contract modification significantly changes the scope, methods, or controls performed by a supplier, an audit of the changes is performed, thus starting a new triennial period.
- Audits conducted by outside organizations for supplier qualification may be utilized provided that the scope and adequacy of the audits meet New Nuclear requirements.

- Documented annual evaluations are performed for qualified suppliers to assure they continue to provide acceptable products and services. Industry programs, such as those applied by Nuclear Procurement Issues Corporation (NUPIC), or other established utility groups, are used as input or the basis for supplier qualification whenever appropriate. 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.

- Provisions are made for accepting purchased items and services, such as source verification, receipt inspection, pre- and post-installation tests, certificates of conformance, and document reviews (including Certified Material Test Report/Certificate). Acceptance actions/documents should be established by the Purchaser with appropriate input from the Supplier and be completed to ensure that procurement, inspection, and test requirements, as applicable, have been satisfied before relying on the item to perform its intended safety function.

- Controls are imposed for the selection, determination of suitability for intended use (critical characteristics), evaluation, receipt, and acceptance of commercial-grade services or items to assure they will perform satisfactorily in service in safety-related applications.

- If there is insufficient evidence of implementation of a QA program, the initial evaluation is of the existence of a QA program addressing the scope of services to be provided. The initial audit is performed after the supplier has completed sufficient work to demonstrate that its organization is implementing a QA program.

7.2.4 Methods for control and disposition of supplier nonconformances for items and services are addressed in Section 15, Control of Nonconforming Items.

7.2.5 Supplier generated documents and changes are established, maintained, and controlled in accordance with Section 6, Document Control.

7.2.6 Under exigent conditions, the audit or survey interval may be extended up to 25% of the periodicity of the audit or survey when performance of such activities is not feasible. This unique grace period can be applied if exigent conditions exist including, but not limited to:

a) A severe local or national public health concern,

b) A natural disaster, severe localized or national weather conditions, or

c) A declaration of a national emergency.

7.2.7 Under these exigent conditions, the grace period clock reset under NQA-1-2022, Part I Requirement 18, Section 200 does not apply; the audit performed within this extension period resets the triennial clock. The 25% grace period extension is applicable to domestic and international suppliers.

7.2.8 During the use of the 25% extension, an evaluation of the supplier's program shall be performed, and the documented results used to determine any necessary adjustments to their qualification status. Suppliers on the Approved Supplier List (ASL) may be maintained during the 25% extension period provided the following actions (1 – 3) are taken and the results satisfactory:

1) Verification that:

a) The supplier is still implementing a quality assurance program that meets 10 CFR 50 Appendix B or

b) Commercial suppliers surveyed are still maintaining adequate controls for activities affecting quality.

2) Monitor on-going and previous supplier performance promptly considering the impact of the following types of information:

a) Results of receipt inspection activities or other operating experience.

b) Review of supplier-furnished documents and records such as certificates of conformance, nonconformance notices, and corrective actions.

c) Results of audits and inspections from other sources (e.g., customer, Nuclear Procurement Issues Corporation (NUPIC), Nuclear Industry Assessment Corporation (NIAC) audits or NRC inspections).

3) In the event of a new procurement activity or change to existing procurements that significantly extends the scope or changes the method / controls for activities performed by the supplier, the evaluation shall document the justification that the change(s) are adequately addressed by the supplier's quality assurance program or mitigating actions are taken by New Nuclear

7.3 NQA-1 Commitment / Exceptions

7.3.1 In establishing controls for purchased items and services, New Nuclear commits to compliance with NQA-1-2022, Part I Requirement 7 and Staff Regulatory Guidance in Regulatory Guide 1.28, Rev. 6with the following clarifications and exceptions:

- Other 10 CFR Parts 50 and 52 licensees, Authorized Nuclear Inspection Agencies, National Institute of Standards and Technology, or other State and Federal agencies which may provide items or services to New Nuclear plants are not required to be evaluated or audited.

- For Section 501, documents that may be stored in approved electronic media under New Nuclear or vendor control, not physically located on the plant site, but accessible from the respective nuclear facility site are considered as meeting the NQA-1 requirement for documents to be available at the site. Following completion of the construction period, sufficient as-built documentation will be turned over to support operations. The records management system will provide for timely retrieval of necessary records.

- In establishing commercial grade item requirements, New Nuclear commits to compliance with NQA-1-2022, Part II Subpart 2.14, with the following clarification:

    - For commercial grade items, quality verification requirements are established and described in New Nuclear documents to provide the necessary assurance an item will perform satisfactorily in service. These documents address determining the critical characteristics that ensure an item is suitable for its intended use, technical evaluation of the item, receipt requirements, and quality evaluation of the item.

    - New Nuclear will assume 10 CFR 21 reporting responsibility for all items that it dedicates as safety-related.

8.0 IDENTIFICATION AND CONTROL OF ITEMS

8.1 General

8.1.1 The necessary measures and governing procedures to identify and control items to prevent the use of incorrect or defective items are established. 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. Identification locations and methods are selected so as not to affect the function or quality of the item. Identification markings shall be applied which provide a clear and legible identification and do not degrade the function or service life of the item. Markings shall be transferred to each part of an identified item when subdivided and shall not be obliterated by surface treatment or coating unless other means of identification are substituted.

8.1.2 If at any time an item cannot be physically identified (traceability is lost), that item shall be considered non-conforming requiring preparation of a nonconformance report. The nonconformance report will document disposition of the item (scrap, segregation, retest or other reverification of traceability).

8.1.3 When codes, standards or specifications include specific identification or traceability requirements, process control documentation shall impose these requirements on those performing the work.

8.1.4 Items having limited calendar or operating life or cycles shall be identified and controlled to preclude use of items whose shelf or operating life has expired. Provisions shall be made for the preservation of item identification consistent with the planned duration and conditions of storage.

8.1.5 Records are established, maintained, and controlled in accordance with Section 17, Quality Assurance Records.

8.2 NQA-1 Commitment

8.2.1 In establishing provisions for identification and control of items, New Nuclear commits to compliance with NQA-1-2022, Part I Requirement 8.

9.0 CONTROL OF SPECIAL PROCESSES

9.1 General

9.1.1 The necessary measures and governing procedures to assure that special processes that require interim process controls to assure quality, such as welding, heat treating, and nondestructive examination, are controlled are established. These provisions include assuring that special processes are accomplished by qualified personnel using qualified procedures and equipment. Processes shall be controlled by instructions, procedures, drawings, checklists, travelers, or other process control documentation. Personnel are qualified and special processes are performed in accordance with procedures, applicable codes, standards, specifications, acceptance 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.

9.1.2 Records shall be maintained documenting the currently qualified personnel, methods and equipment for each special process.

9.2 NQA-1 Commitment

9.2.1 In establishing measures for the control of special processes, New Nuclear commits to compliance with NQA-1-2022, Part I Requirement 9.

10.0 INSPECTION

10.1 General

10.1.1 The necessary measures and governing procedures to implement inspections that assure items, services, and activities affecting safety meet established requirements and conform to applicable documented specifications, instructions, procedures, and design documents are established. Inspection may also be applied to items, services, and activities affecting plant reliability and integrity. Types of inspections may include those verifications related to procurement, such as source, in-process, final, and receipt inspection, as well as construction, installation, maintenance, and modification activities. Characteristics to be inspected and inspection methods to be employed shall be specified in process control documentation and resulting outcomes shall be documented. Sampling procedures, when used, shall be based upon standard statistical methods and shall receive engineering approval. Inspections are carried out by properly qualified persons independent of those who performed or directly supervised the work. Inspection results are documented.

10.2 Inspection Program

10.2.1 The inspection program establishes inspections (including surveillance of processes), as necessary to verify quality: (1) at the source of supplied items or services, (2) in-process during fabrication at a supplier's facility or at a New Nuclear facility, (3) for final acceptance of fabricated and/or installed items during construction, and (4) upon receipt of items for a facility as well as (5) during maintenance, and modification activities.

10.2.2 The inspection program establishes requirements for planning inspections, such as the group or discipline responsible for performing the inspection, where inspection hold points are to be applied, determining applicable acceptance criteria, the frequency of inspection to be applied, and identification of special tools needed to perform the inspection. Mandatory hold points shall be specified. Inspection planning is performed by personnel qualified in the discipline related to the inspection and includes qualified inspectors or engineers. Inspection plans are based on, as a minimum, the importance of the item to the safety of the facility, the complexity of the item, technical requirements to be met, and design specifications. Where significant changes in inspection activities for the facilities are to occur, management responsible for the inspection programs evaluate the resource and planning requirements to ensure effective implementation of the inspection program.

10.2.3 Inspection program documents establish requirements for performing the planned inspections, and documenting required inspection information such as rejection, acceptance, and re-inspection results, and the person(s) performing the inspection. Inspection results are documented by the inspector, reviewed by authorized personnel qualified to evaluate the technical adequacy of the inspection results, and controlled by instructions, procedures, and drawings. Nonconforming conditions identified during inspection activities are evaluated and controlled as addressed in Section 15, Control of Nonconforming Items.

10.2.4 Inspection documentation shall include the following as applicable:

- Item inspected.
- Date of inspection.
- Name of inspector.
- Identification of calibrated M&TE used.
- Type of observation.
- Results or acceptability.
- Reference to information on action taken in connection with nonconformances.

10.2.5 Modifications, repairs, rework, or replacements to items that have already been inspected shall require a re-inspection to the extent necessary based on the modification, repair, rework, or replacement.

10.2.6 If inspection of items is impossible or disadvantageous, indirect control by monitoring processing methods, equipment, and personnel shall be provided. Both inspection and process monitoring shall be provided when control is inadequate without both.

10.3 Inspector Qualification

10.3.1 Qualification programs for personnel performing quality inspections are established. The qualification program requirements are described in Section 2, Quality Assurance Program. These qualification programs are applied to individuals performing quality inspections regardless of the functional group where they are assigned.

10.4 NQA-1 Commitment

10.4.1 In establishing inspection requirements, New Nuclear commits to compliance with NQA-1-2022, Part I Requirement 10, and NQA-1-2022 Part II Subparts 2.5 and 2.8 for establishing appropriate inspection requirements.

11.0 TEST CONTROL

11.1 General

11.1.1 The necessary measures and governing procedures to demonstrate that items subject to the provisions of the QAPD will perform satisfactorily in service, that the plant can be operated safely and as designed, and that the coordinated operation of the plant as a whole is satisfactory, are established. 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. Programs also include provisions to establish and adjust test schedules, and to maintain 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 tests, (2) use of proper test equipment, (3) acceptance criteria, and (4) mandatory verification points as necessary to confirm satisfactory test completion, (5) any special qualification requirements for personnel, and (6) any special environmental conditions. Test results are documented, maintained, and evaluated by the organization performing the test and reviewed by a responsible authority to assure that the test requirements have been satisfied. If acceptance criteria are not met, re-testing is performed as needed to confirm acceptability following correction of the system or equipment deficiencies that caused the failure.

11.1.2 Test records, at a minimum and as applicable, shall identify the following:

- Item tested.
- Date of test.
- Tester or data recorder.
- Type of observation.
- Results and acceptability.
- Action taken in connection with any deviations noted.
- The person evaluating the test results.

11.1.3 Except for computer program testing, which is addressed in Section 11.2, tests are performed, and results documented in accordance with applicable technical and regulatory requirements. Test programs ensure appropriate retention of test data in accordance with the records requirements of the QAPD. Personnel that perform or evaluate tests are qualified in accordance with the requirements established in Section 2, Quality Assurance Program.

11.2 NQA-1 Commitment for Computer Program Testing

11.2.1 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 are established and implemented. To this end New Nuclear commits to compliance with the requirements of NQA-1-2022, Part I Requirement 11, and NQA-1-2022, Part II Subpart 2.7 to establish the appropriate provisions in addition to the requirements established in Section 3, Design Control.

11.3 NQA-1 Commitment

11.3.1 In establishing provisions for testing, New Nuclear commits to compliance with NQA-1-2022, Part I Requirement 11.

12.0 CONTROL OF MEASURING AND TEST EQUIPMENT

12.1 General

12.1.1 The necessary measures and governing procedures to control the calibration, maintenance, and use of measuring and test equipment (M&TE) that provides data to verify acceptance criteria are met or information important to safe plant operation are established. The provisions of such procedures cover equipment such as indicating and actuating instruments and gages, tools, reference and transfer standards, and nondestructive examination equipment. The suppliers of commercial-grade calibration services are controlled as described in Section 7, Control of Purchased Material, Equipment, and Services.

12.1.2 M&TE are calibrated, adjusted, and maintained at prescribed intervals or prior to use against certified equipment having known valid relationships to nationally recognized standards. If no nationally recognized standards exist, the bases for calibration are documented.

12.2 NQA-1 Commitment

12.2.1 In establishing provisions for control of measuring and test equipment, New Nuclear commits to compliance with NQA-1-2022, Part I Requirement 12.

13.0 HANDLING, STORAGE, AND SHIPPING

13.1 General

13.1.1 The necessary measures and governing procedures to control the handling, storage, packaging, shipping, cleaning, and preservation of items to prevent inadvertent damage or loss and to minimize deterioration are established. These provisions include specific procedures, when required to maintain acceptable quality of the items important to the safe operations of the plant. 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.

13.1.2 Special or additional handling, storage, shipping, cleaning, and preservation requirements are identified and implemented as specified in procurement documents and applicable procedures. Where special requirements are specified, the items and containers (where used) are suitably marked.

13.1.3 Special handling tools and equipment are used and controlled as necessary to ensure safe and adequate handling. Special handling tools and equipment are inspected and tested in accordance with procedures at specified time intervals or prior to use.

13.1.4 Operators of special handling and lifting equipment are experienced or trained in the use of the equipment. Where required, applicable hoisting, rigging and transportation regulations and codes are complied with.

13.2 Housekeeping

13.2.1 Housekeeping practices are established to account for conditions or environments that could affect the quality of structures, systems, and components within the plant. This includes control of cleanliness of facilities and materials, fire prevention and protection, disposal of combustible material and debris, control of access to work areas, and protection of equipment. Housekeeping practices help assure that only proper materials, equipment, processes, and procedures are used, and that the quality of items is not degraded. Necessary procedures or work instructions such as for electrical bus and control center cleaning and cleaning of control consoles are developed and used.

13.3 NQA-1 Commitment / Exceptions

13.3.1 In establishing provisions for handling, storage, and shipping, New Nuclear commits to compliance with NQA-1-2022, Part I Requirement 13. New Nuclear also commits, during the construction phase of the plant, to compliance with the requirements of NQA-1-2022, Part II Subpart 2.1, Subpart 2.2, and Subpart 2.3, and NQA-1-2022 Part III Subpart 3.2-2.1, with the following clarifications and exceptions:

a. NQA-1-2022, Subpart 2.1

- Subpart 2.1, Section 301 and 302 establish criteria for classifying items into cleanness classes and requirements for each class. Instead of using the cleanness level system of Subpart 2.1, cleanness requirements may be established on a case-by-case basis, consistent with the other provisions of Subpart 2.1. Appropriate cleanliness controls for work on safety-related equipment are established to minimize introduction of foreign material and maintain system/component cleanliness throughout maintenance or modification activities, including documented verification of absence of foreign material prior to system closure.

b. NQA-1-2022, Subpart 2.2

- Subpart 2.2, Section 606, "Storage Records:" This section requires written records be prepared containing information on personnel access. As an alternative to this requirement, documents establish controls for storage areas that describe those authorized to access areas and the requirements for recording access of personnel. However, these records of access are not considered quality records and will be retained in accordance with the administrative controls of the applicable plant.

c. NQA-1-2022, Subpart 2.3

- Subpart 2.3, Section 202 requires the establishment of five zone designations for housekeeping cleanliness controls. Instead of the five-level zone designation, control over housekeeping activities is based on a consideration of what is necessary and appropriate for the activity involved. The controls are implemented through procedures or instructions which, in the case of maintenance or modification work, are developed on a case-by-case basis. Factors considered in developing the procedures and instructions include cleanliness control, personnel safety, fire prevention and protection, and security. The procedures and instructions make use of standard janitorial and work practices to the extent possible.

14.0 INSPECTION, TEST, AND OPERATING STATUS

14.1 General

14.1.1 The necessary measures and governing procedures to identify the inspection, test, and operating status of items and components subject to the provisions of the QAPD in order to maintain personnel and reactor safety and avoid inadvertent operation of equipment are established. 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.

14.1.2 These measures also establish the necessary authorities and controls for the application and removal of status indicators or labels.

14.1.3 In addition, temporary design changes (temporary modifications), such as temporary bypass lines, electrical jumpers and lifted wires, and temporary trip-point settings, are controlled by procedures that include requirements for appropriate installation and removal, independent/concurrent verifications, and status tracking.

14.1.4 Administrative procedures also describe the measures taken to control altering the sequence of required tests, inspections, and other operations. Review and approval for these actions is subject to the same control as taken during the original review and approval of tests, inspections, and other operations.

14.2 NQA-1 Commitment

14.2.1 In establishing measures for control of inspection, test and operating status, New Nuclear commits to compliance with NQA-1-2022, Part I Requirement 14.

15.0 CONTROL OF NONCONFORMING ITEMS

15.1 General

15.1.1 The necessary measures and governing procedures to control items, including services, that do not conform to specified requirements are established to prevent inadvertent installation or use are. Instructions require that the individual discovering a nonconformance identify, describe, and document the nonconformance in accordance with the requirements of Section 16, Corrective Action. Controls provide for identification, documentation, evaluation, segregation when practical, and disposition of nonconforming items, and for notification to affected organizations. Controls are provided to address conditional release of nonconforming items for use on an at-risk basis prior to resolution and disposition of the nonconformance, including maintaining identification of the item and documenting the basis for such release.

15.1.2 Conditional release of nonconforming items for installation requires the approval of the designated management. Nonconformances are corrected or resolved prior to depending on the item to perform its intended safety function. Nonconformances are evaluated for impact on operability of quality structures, systems, and components to assure that the final condition does not adversely affect safety, operation, or maintenance of the item or service. Nonconformances to design requirements dispositioned repair or use-as-is are subject to design control measures commensurate with those applied to the original design. Nonconformance dispositions are reviewed for adequacy, analysis of quality trends, and reports provided to the designated management. Nonconformance dispositions are also verified to ensure implementation of the disposition. Significant trends are reported to management in accordance with procedures, regulatory requirements, and industry standards.

15.2 Interface with the Reporting Program

15.2.1 Appropriate interfaces between the QAP for identification and control of nonconforming materials, parts, or components and the non-QA Reporting Program to satisfy the requirements of 10 CFR 50.55 during design and construction are established.

15.3 NQA-1 Commitment

15.3.1 In establishing measures for nonconforming materials, parts, or components, New Nuclear commits to compliance with NQA-1-2022, Part I Requirement 15.

16.0 CORRECTIVE ACTION

16.1 General

16.1.1 The necessary measures and governing procedures to promptly identify, control, document, classify, and correct conditions adverse to quality are established. Procedures assure that corrective actions are documented and initiated following the determination of conditions adverse to quality in accordance with regulatory requirements and applicable quality standards. Procedures require personnel to identify known conditions adverse to quality. When complex issues arise where it cannot be readily determined if a condition adverse to quality exists, documents establish the requirements for documentation and timely evaluation of the issue. Reports 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. In the case of a significant condition adverse to quality, the cause is determined and actions to preclude recurrence are taken. Where corrective action measures are indicated, documented follow-up is conducted to verify implementation of assigned corrective action.

16.1.2 In the case of suppliers working on safety-related activities, or other similar situations, New Nuclear may delegate specific responsibilities for corrective actions but maintains responsibility for the effectiveness of corrective action measures.

16.2 Interface with the Reporting Program

16.2.1 Appropriate interfaces between the QAP for corrective actions and the non-QA Reporting Program to satisfy the requirements of 10 CFR 50.55 during design and construction are established.

16.3 NQA-1 Commitment

16.3.1 In establishing provisions for corrective action, New Nuclear commits to compliance with NQA-1-2022, Part I Requirement 16.

17.0 QUALITY ASSURANCE RECORDS

17.1 General

17.1.1 The necessary measures and governing procedures to ensure that sufficient records of items and activities affecting quality are developed, reviewed, approved, issued, used, revised, and maintained to reflect completed work are established. The provisions of such procedures establish record control responsibilities, as well as the scope of the records retention program and include requirements for records administration, including receipt, preservation, retention, storage, safekeeping, retrieval, access controls, user privileges, and final disposition.

17.2 Record Storage and Maintenance

17.2.1 Measures are established that ensure that sufficient records of completed items and activities affecting quality are appropriately stored. Records of activities for design, engineering, procurement, manufacturing, construction, installation, inspection and test, and audits and their retention times are defined in appropriate procedures. The records and retention times are based on Regulatory Position C.3 of Regulatory Guide 1.28, Revision 6 for design and construction. In all cases where state, local, or other agencies have more restrictive requirements for record retention, those requirements will be met.

17.2.2 Records shall be stored in a manner that minimizes the risk of loss, damage, or destruction from:

a) Natural disasters, such as winds, floods, or fires.

b) Environmental conditions such as high and low temperatures and humidity.

c) Infestation of insects, mold, or rodents.

d) Dust or airborne particles.

17.2.3 Depending on the specific media used for record storage, provisions shall be made to prevent damage from other harmful conditions such as excessive light, stacking and electromagnetic fields.

17.2.4 In general, records are maintained electronically. Where paper records are maintained, they shall be received and stored in an appropriate storage facility.

17.2.5 Storage of final records shall meet one of the following two requirements:

a) Single storage consists of a storage facility, vault, room, or container with a minimum two-hour fire rating.

b) Dual facilities, containers, or a combination thereof shall be at locations sufficiently remote from each other to eliminate the chance exposure to a simultaneous hazard. Facilities used for dual storage are not required to meet the requirements for single storage listed above.

17.2.6 Access to final storage facilities shall be controlled in order to limit access to authorized personnel.

17.3 Electronic Records

17.3.1 The following requirements apply for electronic records:

a. No deletion or modification of records unless authorized pursuant to applicable record retention rules.

b. Redundancy such as system backup, dual storage or other appropriate means are provided.

c. Legibility is required of each record.

d. Records media are properly maintained.

e. Inspections to ensure no degradation of records.

f. Records are acceptably converted into any new system before the old system is taken out of service.

17.3.2 When records are duplicated or transferred to the same media or to different media for the purposes of maintenance or storage, the duplication or transfer shall be controlled to assure that the record content, legibility, and ability to retrieve is maintained. Periodic inspections of systems, software applications, and media are performed to ensure electronic records retrievability, integrity, and retention period.

17.3.3 When using optical disks for electronic records storage and retrieval systems, the storage of QA Records in electronic media are managed in accordance with NIRMA Guidelines TG 11-2011, TG 15-2011, TG 16-2011, TG 21-2011, approved by RG 1.28 Rev. 6.

17.4 NQA-1 Commitment

17.4.1 In establishing provisions for records, New Nuclear commits to compliance with NQA-1-2022, Part I Requirement 17, and Staff Regulatory Guidance in Regulatory Guide 1.28, Rev. 6.

18.0 AUDITS

18.1 General

18.1.1 The necessary measures and governing procedures to implement audits to verify that activities covered by the QAPD are performed in conformance with the established requirements and performance criteria are met are established. The audit programs are themselves reviewed for effectiveness as a part of the overall audit process.

18.2 Performance of Audits

18.2.1 Internal audits of selected aspects of licensing, design, and construction activities are performed with a frequency commensurate with safety significance and in a manner which assures that audits of safety-related activities are completed. During the early portions of site characterization and construction activities, audits will focus on areas including, but not limited to, site investigation, procurement, and corrective action. Functional areas of an organization's QA program for auditing include, at a minimum, verification of compliance and effectiveness of implementation of internal rules, procedures (e.g., design, procurement), corrective actions, and observation of performance of construction activities, including associated record keeping.

18.2.2 The audits are scheduled on a formal preplanned audit schedule and in a manner to provide coverage and coordination with ongoing activities, based on the status and importance of the activity. Additional audits may be performed as deemed necessary by management. The scope of the audit is determined by the quality status and safety importance of the activities being performed. These audits are conducted by trained personnel not having direct responsibilities in the area being audited and in accordance with preplanned and approved audit plans or checklists, under the direction of a qualified lead auditor and the cognizance of the Quality Assurance Manager.

18.2.3 New Nuclear is responsible for conducting periodic internal audits to determine the adequacy of programs and procedures (by representative sampling), and to determine if they are meaningful and comply with the overall QAPD.

18.2.4 The results of each audit are reported in writing to the Quality Assurance Manager or designee as appropriate. Additional internal distribution is made to other concerned management levels and to management of the internal audited organizations or activities in accordance with approved procedures.

18.2.5 Audit reports shall include a summary of the audit results, including a statement on the effectiveness of the elements audited, as well as a description of each reported adverse audit finding.

18.2.6 Management responds to all audit findings and initiates corrective action where indicated. Where corrective action measures are indicated, documented follow-up of applicable areas through inspections, review, re-audits, or other appropriate means is conducted to verify implementation of assigned corrective action.

18.2.7 Audits of suppliers of safety-related components and/or services are conducted as described in Section 7, Control of Purchased Material, Equipment, and Services.

18.3 Internal Audits

18.3.1 Internal audits of activities, conducted prior to placing the facility in operation, shall be performed in such a manner as to assure that an audit of all applicable QA program elements is completed for each functional area at least once every two years.

18.3.2 Internal audits include verification of compliance and effectiveness of the administrative controls established for implementing the requirements of the QAPD; regulations and license provisions; provisions for training, retraining, qualification, and performance of personnel performing activities covered by the QAPD; corrective actions taken following abnormal occurrences; and, observation of the performance of construction, fabrication, maintenance, and modification activities including associated record keeping.

18.4 18.3 NQA-1 Commitment

18.4.1 In establishing the independent audit program, New Nuclear commits to compliance with NQA-1-2022, Requirement 18 and the Regulatory Positions stated in RG 1.28, Rev. 6.

PART III - NONSAFETY-RELATED SSC QUALITY CONTROL

1.0 NONSAFETY-RELATED SSCS – CREDITED FOR REGULATORY EVENTS

1.1 The following criteria apply to fire protection (10 CFR 50.48), anticipated transients without scram (ATWS) (10 CFR 50.62), and station blackout (SBO) (10 CFR 50.63) structures, systems, and components, as applicable to each project, that are not safety-related:

- Quality requirements for the fire protection system are implemented in accordance with Staff Regulatory Position 1.7, "Quality Assurance," in Regulatory Guide 1.189, Revision 5, October 2023, "Fire Protection for Nuclear Power Plants".

- The quality requirements for ATWS equipment are implemented in accordance with Generic Letter 85-06, April 1985, “Quality Assurance Guidance for ATWS Equipment That Is Not Safety Related.”

- Quality requirements for SBO equipment are implemented in accordance with Regulatory Position 3.5, “Quality Assurance and Specific Guidance for SBO Equipment That Is Not Safety Related,” and Appendix A, “Quality Assurance Guidance for Nonsafety Systems and Equipment,” in Regulatory Guide 1.155, Revision 0, August 1988, “Station Blackout.”

PART IV - REGULATORY COMMITMENTS

1.0 NRC REGULATORY GUIDES AND QUALITY ASSURANCE STANDARDS

1.1 General

1.1.1 This section identifies the NRC Regulatory Guides (RG) and the other quality assurance standards which have been selected to supplement and support the QAPD. New Nuclear complies with these standards to the extent described or referenced. Commitment to a particular RG or standard does not constitute a commitment to other RGs or standards that may be referenced therein.

1.1.2 New Nuclear commits to identifying the extent of conformance, including justifications for exclusion or modifications based on the specific characteristics of non-LWR technologies, to other RGs, Generic Letters and standards supplementing the QAPD within the applicable license application documents, including but not limited to items listed below.

1.2 Regulatory Guides:

1.2.1 **Regulatory Guide 1.8**, Revision 4, June 2019, Qualification and Training of Personnel for Nuclear Power Plants

- Regulatory Guide 1.8 provides guidance that is acceptable to the NRC staff regarding qualifications and training for nuclear power plant personnel.

- Conformance and exceptions for the applicable regulatory position guidance provided in this regulatory guide is identified in applicable license applications (e.g., safety analysis reports).

1.2.2 **Regulatory Guide 1.26,** Revision 6, December 2021 - Quality Group Classifications and Standards for Water-, Steam-, and Radioactive-Waste-Containing Components of Nuclear Power Plants

- Regulatory Guide 1.26 defines classification of systems and components.

- Conformance and exceptions for the applicable regulatory position guidance provided in this regulatory guide is identified in applicable license applications (e.g., safety analysis reports).

- New Nuclear takes exception, in general, to the inclusion of safety classification basis requirements in the QAPD. Appropriate industry-standard criteria for safety classification of systems, structures, and components will be identified in applicable licensing applications.

1.2.3 **Regulatory Guide 1.28**, Revision 6, September 2023, Quality Assurance Program Criteria (Design and Construction)

- Regulatory Guide 1.28 describes a method acceptable to the NRC staff for complying with the provisions of Appendix B with regard to establishing and implementing the requisite quality assurance program for the design and construction of nuclear power plants.

- Conformance and exceptions for the applicable regulatory position guidance provided in this regulatory guide are identified in applicable license applications (e.g., safety analysis reports).

1.2.4 **Regulatory Guide 1.29,** Revision 6, July 2021 - Seismic Design Classification for Nuclear Power Plants

- Regulatory Guide 1.29 defines systems required to withstand a safe shutdown earthquake (SSE).

- Conformance and exceptions for the applicable staff regulatory guidance provided in this regulatory guide are identified in applicable license applications (e.g., safety analysis reports).

1.2.5 **Regulatory Guide 1.54**, Revision 3, April 2017 - Service Level I, II, III, and In-Scope License Renewal Protective Coatings Applied to Nuclear Power Plants

- Regulatory Guide 1.54 provides guidance for the application of protective coatings within nuclear power plants to protect surfaces from corrosion, contamination from radionuclides, and for wear protection.

- New Nuclear identifies conformance and exceptions for the applicable regulatory position guidance provided in this regulatory guide in applicable license applications (e.g., safety analysis reports).

1.2.6 **Regulatory Guide 1.164**, Revision 1, April 2024, Dedication of Commercial-Grade Items for Use in Nuclear Power Plants

- Regulatory Guide 1.164 describes methods that the staff of the NRC considers acceptable in meeting regulatory requirements for dedication of commercial-grade items and services.

- New Nuclear identifies conformance and exceptions for the applicable staff regulatory guidance provided in this regulatory guide in applicable license applications (e.g., safety analysis reports).

1.2.7 **Regulatory Guide 1.231**, Revision 0, January 2017, Acceptance of Commercial-Grade Design and Analysis Computer Programs used in Safety-Related Applications for Nuclear Power Plants

- Regulatory Guide 1.231 describes methods that the staff of the NRC considers acceptable in meeting regulatory requirements for acceptance and dedication of commercial-grade design and analysis computer programs used in safety-related applications.

- New Nuclear identifies conformance and exceptions for the applicable staff regulatory guidance provided in this regulatory guide in applicable license applications (e.g., safety analysis reports).

1.2.8 **Regulatory Guide 1.234**, Revision 1, March 2024, Evaluating Deviations and Reporting Defects and Noncompliance Under 10 CFR Part 21

- Regulatory Guide 1.234 describes methods that the staff of the NRC considers acceptable in meeting regulatory requirements for acceptance for complying with 10 CFR 21.

- New Nuclear identifies conformance and exceptions for the applicable staff regulatory guidance provided in this regulatory guide in applicable license applications (e.g., safety analysis reports).

1.3 Standards

1.3.1 **ASME NQA-1-2022** - Quality Assurance Requirements for Nuclear Facility Applications

- New Nuclear commits to NQA-1-2022 as described in this QAPD.

1.3.2 **Nuclear Information and Records Management Association, Inc. (NIRMA) Technical Guides (TGs)**

- New Nuclear commits to NIRMA TGs as described in Section 17, Quality Assurance Records.

1.3.3 **NEI 14-05A, Revision 1 -** Guidelines for the Use of Accreditation in Lieu of Commercial Grade Surveys for Procurement of Laboratory Calibration and Test Services

- New Nuclear commits to NEI 14-05A, Revision 1, as described in Section 7, Control of Purchased Material, Equipment, and Services.