

Enclosure 1
Apollo Atomics Quality Assurance Program Description
September 2026

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Apollo Atomics

Quality Assurance Program Description

Design and Construction - 10 CFR Part 50

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Revision History

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Note: This revision contains front matter, all 18 Appendix B criteria in Part II, nonsafety-related SSC controls in Part III, and consolidated commitments in Part IV.

Executive Summary

This Quality Assurance Program Description (QAPD) establishes the top-level quality assurance policy, organizational responsibilities, and program controls that Apollo Atomics, Inc. applies to activities affecting the quality of an Apollo Atomics reactor (e.g., an Apollo A-10). The program is established to satisfy the applicable requirements of Appendix B to Title 10 of the Code of Federal Regulations (10 CFR) Part 50 and is based on ASME NQA-1-2022, "Quality Assurance Requirements for Nuclear Facility Applications," as endorsed, with clarifications and regulatory positions, by U.S. Nuclear Regulatory Commission (NRC) Regulatory Guide 1.28, Revision 6.

The initial scope of this QAPD supports Apollo Atomics' planned two-step licensing process under 10 CFR Part 50. It applies to design and construction-phase activities, including design, procurement, fabrication, factory assembly, construction, handling, storage, shipping, inspection, and testing of safety-related structures, systems, and components (SSCs). Part III provides for selective application of quality controls to nonsafety-related SSCs when required by the licensing basis or when such SSCs are identified as significant contributors to plant safety. Part IV consolidates the regulatory guides, standards, clarifications, and implementation conditions adopted by Apollo Atomics specific to this QAPD. Apollo Atomics will revise or supplement the program, as necessary, to address operating-phase activities before those activities are performed.

Apollo Atomics retains full responsibility for the establishment and execution of the Quality Assurance Program (QAP), including work delegated to contractors, consultants, suppliers, laboratories, and other external organizations. The Chief Executive Officer retains overall authority and responsibility for the QAP. The senior Quality Assurance manager reports directly to the Chief Executive Officer and has sufficient authority, organizational freedom, resources, and direct access to management to identify quality problems, initiate or recommend solutions, verify implementation of solutions, and stop work when warranted.

The QAP consists of this QAPD and the policies, procedures, instructions, drawings, plans, specifications, and other implementing documents used to control activities affecting quality. Program requirements are implemented before the applicable activity is performed. Information developed before application of the QAP is not relied upon for a safety-related application until it has been evaluated and accepted under documented controls.

Abbreviations

Abbreviation	Meaning
A-10	Apollo Atomics A-10 reactor
CAQ	Condition adverse to quality
CEO	Chief Executive Officer
COO	Chief Operating Officer
M&TE	Measuring and test equipment
NQA-1	ASME NQA-1, Quality Assurance Requirements for Nuclear Facility Applications
NRC	U.S. Nuclear Regulatory Commission
QAP	Quality Assurance Program
QAPD	Quality Assurance Program Description
QA	Quality assurance
SSC	Structure, system, or component

Quality Policy Statement

Apollo Atomics (Apollo) shall design, procure, construct, and operate its nuclear facilities in a manner that will ensure the health and safety of the public and workers. These activities shall be performed in compliance with the requirements of the Code of Federal Regulations (CFR), the applicable Nuclear Regulatory Commission (NRC) Licenses and applicable laws and regulations of the state and local governments.

The Apollo 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 Apollo 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 may also be applied to certain equipment and activities that are not safety-related, but support safe plant operations, or where other NRC guidance establishes program requirements.

The QAPD is the top-level policy document that establishes the manner in which quality is to be achieved and presents Apollo's 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. Apollo 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 Apollo QAP. The Chief Executive Officer retains overall responsibility for the establishment and execution of the QAP and approves this QAPD.

Signed,

Approved by: Assil Halimi

Title: Chief Executive Officer

Date: _____

Part I - Introduction

1.0 General

Apollo's Quality Assurance Program Description (QAPD) is the top-level policy document that establishes the quality assurance policy and assigns major functional responsibilities for design, construction and pre-operation activities conducted by or for Apollo. The QAPD describes the methods and establishes quality assurance (QA) and administrative control requirements that meet 10 CFR 50, Appendix B and 10 CFR 52. The QAPD is based on the requirements and guidance of ASME NQA-1-2008 and NQA-1a-2009 Addenda, "Quality Assurance Requirements for Nuclear Facility Applications," Parts I and II, with specific reference to selected Part III sections, as identified in this document.

The QA 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. Procedures and instructions that control nuclear development activities will be developed prior to commencement of those activities.

1.1 Scope and Applicability

The Apollo Atomics QAP applies to activities that generate, verify, modify, procure, fabricate, test, or maintain information or items intended, or reasonably expected, to the quality and performance of safety-related structures, systems, and components. Applicable activities include:

1. design and design verification;
2. siting;
3. procurement of items and services;
4. fabrication and factory assembly;
5. qualification and control of special processes;
6. identification, handling, storage, shipping, receipt, and cleaning and preservation of items;
7. construction, installation, and field changes;
8. inspection, examination, and testing;
9. control of measuring and test equipment;
10. control of documents, software, and quality assurance records;
11. control of nonconforming items and conditions adverse to quality;
12. training and qualification of personnel; and
13. audits, assessments, and oversight of organizations performing activities affecting quality.

The QAP applies to work performed at Apollo Atomics facilities, project offices, test facilities, supplier and contractor locations, fabrication and assembly facilities, laboratories, storage locations, and construction sites when those activities are within the scope of the QAP.

Information or items produced before the applicable QAP controls become effective shall not be treated as verified or accepted for a safety-related application unless they are evaluated and accepted under the legacy-information qualification controls described in Section 2.8 and the applicable implementing procedures.

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 and 10 CFR 52 establish QA requirements for activities within their scope.

The policy of Apollo is to assure a high degree of availability and reliability of the nuclear facility while ensuring the health and safety of its workers and the public. To this end, selected elements of the QAPD are also applied to certain equipment and activities that are not safety-related, but support safe, economic, and reliable plant operations, or where other NRC guidance establishes quality assurance requirements. Implementing documents establish program element applicability.

Apollo Atomics applies selected QAP controls to nonsafety-related SSCs and activities when those controls are required by the licensing basis, are necessary to provide confidence in a credited function, or are otherwise determined appropriate through the controlled classification process. Part III of this QAPD describes the controls applied to those SSCs.

The initial QAPD addresses design and construction-phase activities supporting a construction permit under 10 CFR Part 50. Apollo Atomics will revise or supplement the QAPD, as necessary, to address managerial and administrative controls for the operating phase before operating-phase activities are performed.

Apollo Atomics may delegate activities to contractors, consultants, suppliers, laboratories, and other external organizations. Delegation does not relieve Apollo Atomics of responsibility for the QAP or for the quality of delegated work. External organizations performing activities within the scope of the QAP are subject to requirements commensurate with the importance, complexity, and safety significance of the item or service.

A commitment to a regulatory guide, code, standard, or industry document does not constitute a commitment to every secondary reference cited by that document unless the secondary reference is separately incorporated by regulation or specifically identified as a commitment in this QAPD or another Apollo Atomics licensing-basis document.

1.2 Definitions

Terms defined in applicable NRC regulations have the meanings assigned by those regulations. Terms defined in ASME NQA-1-2022 have the meanings assigned by that standard when used in the context of an NQA-1 requirement, unless this QAPD provides a specific definition.

The definitions provided in ASME NQA-1–2022, apply to select terms as used in this document.

For this QAPD:

Activity affecting quality means an activity that influences the quality of a safety-related SSC or the performance of its safety-related function.

Implementing document means a controlled policy, procedure, instruction, drawing, plan, specification, checklist, traveler, or other document that prescribes or controls an activity under the QAP.

Legacy information means design information, calculations, analyses, software, test results, supplier information, or other technical information developed before application of the QAP or without objective evidence that the applicable QAP requirements were satisfied.

Quality Assurance Program means the planned and systematic actions established by this QAPD and its implementing documents to provide adequate confidence that an SSC will perform satisfactorily in service.

Safety-related has the meaning established by applicable NRC regulations and the facility licensing basis, when established.

Part II - Quality Assurance Program Description and Details

Section 1 - Organization

1.0 General

This section describes the Apollo organizational structure, functional responsibilities, levels of authority and interfaces for establishing, executing, and verifying QAPD implementation. The organizational structure includes support, off-site and onsite functions for nuclear development activities, including interface responsibilities for multiple organizations that perform quality-related functions. 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. Management gives careful consideration to the timing, extent, and effects of organizational structure changes.

Apollo Atomics documents and maintains an organizational structure that clearly establishes functional responsibilities, levels of authority, and lines of communication for activities affecting quality. The structure provides for achievement of quality by the organizations performing work and independent verification of quality by individuals or organizations that are not directly responsible for performing the work being verified.

The Board of Directors provides corporate governance and oversight. The Chief Executive Officer retains overall authority and responsibility for the QAP. The Chief Operating Officer and functional managers are responsible for implementing applicable QAP requirements within their organizations. The senior Quality Assurance manager is independent of the organizations responsible for cost, schedule, design, procurement, fabrication, construction, and testing and reports directly to the Chief Executive Officer.

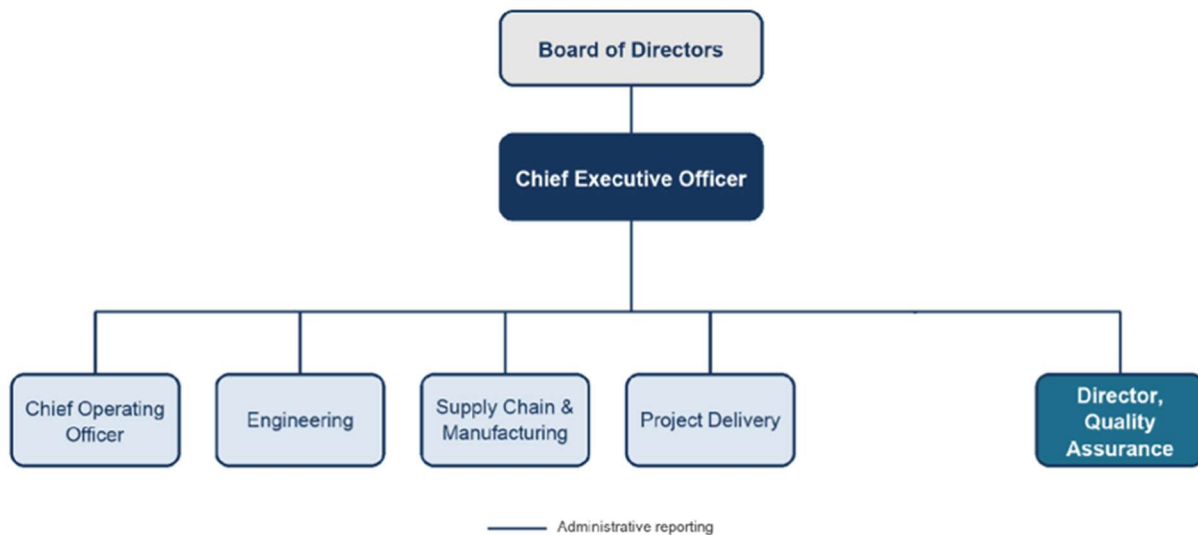


Figure 1-1. Apollo Atomics QAP organizational relationships.

1.1 Board of Directors

The Board of Directors provides corporate governance and oversight of executive management. The Board does not perform day-to-day quality assurance functions. The Chief Executive Officer is the

executive management interface with the Board and retains overall authority and responsibility for the QAP.

1.2 Chief Executive Officer

The Chief Executive Officer:

1. retains overall authority and responsibility for establishing and executing the QAP;
2. approves the QAPD and changes that alter program commitments;
3. establishes the quality policy and management expectations for nuclear safety and quality;
4. ensures that adequate authority, organizational freedom, staffing, qualifications, and resources are provided to implement the QAP;
5. ensures that safety and quality are not subordinated to cost or schedule;
6. resolves quality disputes that cannot be resolved at lower management levels; and
7. provides executive oversight and ensures timely resolution of significant quality matters.

The Chief Executive Officer may delegate performance of work but does not delegate the ultimate responsibility for the QAP.

1.3 Chief Operating Officer

The Chief Operating Officer supports the Chief Executive Officer in implementing the QAP across Apollo Atomics. The Chief Operating Officer:

1. ensures that functional organizations integrate applicable QAP requirements into project planning and execution;
2. provides resources necessary to perform activities affecting quality;
3. coordinates interfaces among Engineering, Supply Chain & Manufacturing, Project Delivery, Policies & Procedures, and other participating organizations;
4. ensures that conditions adverse to quality are entered into the corrective action program and addressed by responsible managers; and
5. supports timely resolution of issues while preserving the independence and authority of Quality Assurance.

The Chief Operating Officer does not direct or overrule independent Quality Assurance conclusions. Disputes affecting QAP implementation are resolved in accordance with Section 1.9.

1.4 Senior Quality Assurance Manager

The senior Quality Assurance manager, referred to in this QAPD as the Director, Quality Assurance, reports directly to the Chief Executive Officer. The title may be changed without revising this QAPD when the assigned function, authority, independence, and reporting relationship remain unchanged.

The Director, Quality Assurance:

1. develops, maintains, and interprets the QAPD;
2. verifies that activities affecting quality are performed in accordance with the QAP;
3. has direct and unrestricted access to the Chief Executive Officer and access to work locations, personnel, documents, and records necessary to perform the QA function;
4. identifies quality problems;
5. initiates, recommends, or provides solutions to quality problems through designated channels;
6. verifies implementation and effectiveness of solutions;
7. controls further processing, delivery, installation, use, or acceptance of nonconforming items and services until proper disposition is achieved;
8. issues stop-work orders when warranted;
9. approves the qualification of QA audit personnel and manages the independent audit program;
10. evaluates QAP implementation and reports significant quality matters and program performance to management;
11. reviews proposed QAPD changes for compliance with regulatory requirements and commitments; and
12. ensures that the size, qualifications, and resources of the QA organization are commensurate with assigned duties.

The Director, Quality Assurance may delegate QA activities to qualified personnel but retains responsibility for their effective performance.

1.5 Engineering

Engineering is the Apollo design authority and is responsible for achieving quality in design and engineering activities. The Engineering manager, or a formally designated individual, exercises the design-authority approvals assigned by this QAPD and its implementing documents. Engineering responsibilities include:

1. establishing and maintaining design inputs, design bases, criteria, and interfaces;
2. preparing, reviewing, approving, and controlling design outputs;
3. performing and documenting design analyses and calculations;
4. selecting and qualifying design methods and computer programs;
5. performing or arranging independent design verification;
6. controlling design changes, field changes, and dispositions that require design review;
7. identifying safety-related SSCs and activities subject to the QAP;
8. defining technical and quality requirements for procured items and services;
9. evaluating legacy information before safety-related use; and

10. maintaining configuration and traceability between requirements, design outputs, verification, and records.

1.6 Supply Chain & Manufacturing

Supply Chain & Manufacturing management is responsible for achieving quality in procurement, supplier oversight, fabrication, and factory assembly activities. Responsibilities include:

1. incorporating applicable technical, quality assurance, right-of-access, documentation, and reporting requirements into procurement documents;
2. evaluating and selecting suppliers;
3. coordinating source surveillance, source inspection, audits, and receipt acceptance;
4. maintaining approved supplier status information;
5. controlling supplier interfaces and supplier-generated documents and records;
6. planning and controlling fabrication, assembly, special processes, inspection, and testing performed by or for Apollo Atomics;
7. maintaining item identification and traceability;
8. controlling nonconforming items and supplier corrective actions; and
9. ensuring that required records accompany or are traceable to items before release, shipment, installation, or use.

1.7 Project Delivery

Project Delivery management is responsible for achieving quality in project execution, construction, installation, site receipt, storage, handling, preservation, inspection, testing, and turnover activities. Responsibilities include:

1. integrating QAP requirements into project plans and schedules;
2. establishing interfaces between factory activities and site construction;
3. ensuring that prerequisites, work controls, hold points, and acceptance criteria are established before work;
4. controlling the status of inspections, tests, nonconformances, and temporary configurations;
5. coordinating turnover of items and quality records from suppliers and factories to the site and from construction to the future operating organization; and
6. ensuring that construction and site activities are performed by qualified personnel using approved implementing documents.

The Chief Executive Officer designates a Regulatory Affairs/Licensing function within Project Delivery or another documented management organization. That function coordinates NRC interfaces, licensing-basis development, regulatory positions and commitments, review of information submitted to the NRC, licensing-basis classification interfaces, and regulatory-reporting evaluations. The assignment does not

transfer Engineering's design authority, Quality Assurance's independent oversight authority, legal advisory responsibilities, or the responsible officer's regulatory duties.

1.8 Organizational Independence and Verification

Persons performing verification activities are independent of the individuals who performed or directly supervised the work being verified, to the degree required by the applicable criterion, code, standard, or implementing document. Verification personnel have sufficient authority, access, competence, and organizational freedom to perform their assigned functions.

Design verification independence is established in Section 3. Inspection independence is established in Section 10. Audit independence is established in Section 18. Quality Assurance may use qualified personnel from outside the QA organization when those individuals are independent of the work and are qualified in the applicable activity and QAP requirements.

1.9 Stop-Work Authority and Resolution of Quality Disputes

All personnel have authority to stop or suspend their own work when continuation could produce an unacceptable result or conceal a quality problem. Management and Quality Assurance personnel may stop work within their assigned authority. The Director, Quality Assurance has authority to stop Apollo Atomics or supplier work subject to the QAP.

Work stopped for a quality reason may resume only after the condition has been documented, evaluated, and dispositioned by authorized personnel and the basis for resumption has been verified when required.

Quality disputes are resolved at the lowest appropriate management level without compromising applicable requirements. When the Director, Quality Assurance disagrees with a proposed action and resolution cannot be achieved, the matter is referred directly to the Chief Executive Officer for final resolution. The resolution and basis are documented. No dispute resolution may authorize work contrary to applicable regulatory requirements, licensing-basis commitments, or approved QAP requirements.

1.10 Delegation of Work and Organizational Interfaces

Apollo Atomics clearly defines responsibility, authority, communication, document exchange, technical interfaces, and record turnover when work is divided among internal or external organizations. Interface controls address activities performed across engineering disciplines, Apollo facilities, supplier locations, factories, laboratories, and construction sites.

Before delegated work begins, Apollo identifies the organization or individual responsible for accepting the work and verifies that applicable requirements, resources, qualifications, and controls are established. Apollo Atomics evaluates the performance of delegated organizations through audits, assessments, surveillance, inspection, document review, testing, or other appropriate methods. Acceptance of delegated work does not relieve the performing organization of its contractual responsibilities or Apollo Atomics of its regulatory responsibility.

1.11 NQA-1 Commitment

In establishing its organizational structure and responsibilities, Apollo Atomics commits to ASME NQA-1-2022, Part I, Requirement 1, "Organization," as supplemented and clarified by this QAPD and applicable NRC regulatory positions.

Section 2 - Quality Assurance Program

2.0 General

Apollo Atomics establishes, documents, implements, and maintains the QAP before performing activities within the program boundary established in Part 1, Section 1.1. Apollo will establish the necessary measures and governing procedures to implement the QAP as described in the QAPD prior to conducting activities affecting quality. Apollo is committed to implementing the QAP in all aspects of work that are important to the safety of the nuclear facility 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, Apollo ensures through the systematic process described herein that its 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 Part II, Section 18.

The objective of the QAP is to assure that Apollo's nuclear facilities are designed and constructed in accordance with governing regulations and license requirements. The program is based on the requirements of ASME NQA-1-2022. The QAP provides control over activities affecting quality to an extent consistent with the importance of the item or activity to safety and provides for verification of quality by inspection, test, audit, surveillance, review, or other appropriate means.

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 Apollo 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.

The QAP is binding on organizations and personnel performing or verifying activities within its scope. Cost and schedule considerations shall not prevent proper implementation of QAP requirements.

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

A grace period 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 grace 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.

The Apollo Atomics Appendix B QAP shall become effective no later than the initiation of activities intended to generate design, procurement, fabrication, software, inspection, or test information supporting the Apollo Atomics licensing bases.

For the current project, Apollo Atomics shall implement the Appendix B QAP during calendar year 2026 so that all steam generator licensing-support testing scheduled to commence in February 2027 is planned, performed, documented, and verified under the Apollo-approved and controlled QAP. Apollo's

internal approval and implementation of the QAP does not represent NRC acceptance of this QAPD; NRC acceptance will be addressed through the applicable licensing process.

2.1 Responsibility and Program Documents

Personnel who work directly or indirectly for Apollo are responsible for achieving acceptable quality in the work covered by the QAPD. Apollo 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 Chief Executive Officer retains responsibility for the scope and effective implementation of the QAP. The Director, Quality Assurance is responsible for development, maintenance, and independent oversight of the QAP. Functional managers are responsible for implementing applicable requirements within their organizations and for the quality of work performed under their direction.

The QAP consists of:

1. this QAPD;
2. corporate and functional policies;
3. implementing procedures and instructions;
4. design, procurement, fabrication, construction, inspection, and test documents;
5. project and quality plans;
6. supplier quality assurance programs accepted for delegated work; and
7. records that provide objective evidence of QAP implementation.

Implementing documents shall be consistent with this QAPD. If a conflict exists, the more stringent applicable regulatory or QAPD requirement is followed until the conflict is formally resolved.

2.2 Program Scope and Identification of SSCs and Activities

Apollo Atomics establishes and maintains controlled methods for identifying safety-related SSCs and activities subject to the QAP. The identification method provides traceability to the applicable safety function, design or licensing basis, and required quality controls.

The controlled QA list, database, or equivalent information system is maintained under Apollo Atomics' control and updated as the design and licensing basis mature. It is available at Apollo Atomics' principal office or another controlled location for use by affected personnel and for NRC review or inspection, as applicable. Changes are reviewed by qualified Engineering and Quality Assurance personnel. Where classification or applicability is uncertain, the item or activity is controlled at the higher applicable level until the uncertainty is resolved and documented.

The QAP applies to safety-related services associated with SSCs, including design, analysis, software, inspection, testing, fabrication, replacement parts, and consulting services when those services affect a safety-related function.

Quality controls are applied in a manner commensurate with the safety significance, complexity, and quality risk of the item or activity. Grading determines the extent and rigor of controls; it does not eliminate applicable Appendix B requirements for safety-related SSCs or activities.

Factors considered when grading controls include:

1. the item's safety function and consequence of failure;
2. the complexity and uniqueness of the item or activity;
3. the need for special controls, processes, equipment, or skills;
4. the degree to which functional compliance can be demonstrated by inspection or test;
5. the quality history and performance of the item, process, or supplier;
6. the maturity of the design and the extent of standardization;
7. the difficulty of repair, replacement, or recovery; and
8. the significance of the information or service to a licensing or safety conclusion.

The basis for graded controls is documented in design, procurement, planning, or implementing documents and is subject to QA review or oversight as appropriate.

2.3 Periodic Review of the QA Program

Senior management reviews the status, adequacy, and effectiveness of the QAP at least annually and more frequently when warranted by program performance or the nature of ongoing activities. The review is performed by management above or outside the QA organization to provide an objective assessment.

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.

2.4 Delegated Work

Apollo retains and exercises the responsibility for the scope and implementation of an effective QAP. Positions identified in Part II, Section 1, 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.

Apollo Atomics may use a supplier's or contractor's quality assurance program to perform delegated work when that program has been evaluated and accepted in accordance with the QAP. Procurement

documents identify the applicable QAP requirements and Apollo Atomics' right of access to work, facilities, documents, and records.

2.5 Indoctrination, Training, and Qualification

Personnel performing or verifying activities affecting quality are indoctrinated, trained, and qualified commensurate with their assigned responsibilities. Managers ensure that only personnel who meet applicable qualification requirements perform activities for which qualification is required.

Indoctrination and training address, as applicable:

1. the purpose and scope of the QAP;
2. applicable regulatory, code, standard, and implementing-document requirements;
3. technical objectives and acceptance criteria;
4. individual responsibilities and authority;
5. nuclear safety culture, problem identification, and stop-work expectations;
6. methods, equipment, and skills needed to perform the activity; and
7. changes to requirements or methods that affect assigned work.

Qualification programs identify education, experience, training, examination, certification, demonstration, and requalification requirements, as applicable. Qualification and training records are maintained as quality assurance records when they provide evidence of competence to perform activities affecting quality.

2.5.1 Quality Assurance Management and Staff

The Director, Quality Assurance has education, experience, technical knowledge, leadership capability, and quality-verification experience commensurate with responsibility for an Appendix B QAP. Unless an alternative qualification is approved and documented under the equivalency provision below, the Director, Quality Assurance:

1. holds a baccalaureate degree in engineering or a related science;
2. has at least four years of related experience, including at least two years of nuclear power plant or nuclear-facility quality assurance experience;
3. has at least one year of supervisory or management experience; and
4. has at least one year of experience performing or directing quality-verification activities.

The Director, Quality Assurance also has demonstrated capability in leadership, communication, management responsibility, personnel motivation, problem analysis, decision-making, and administration of quality assurance policies and procedures.

Personnel assigned to supervise QA or quality-control personnel have a high-school diploma or equivalent and at least one year of experience performing quality-verification activities. Personnel assigned to plan, implement, or maintain QAP elements have a high-school diploma or equivalent and at least one year of related experience, unless more stringent requirements apply to the assigned work.

An individual who does not meet a stated formal education or experience criterion may be accepted only when documented education, training, experience, demonstrated capability, and other relevant factors provide an equivalent basis for performance. An equivalency for the Director, Quality Assurance is reviewed by qualified Quality Assurance and Regulatory Affairs/Licensing personnel and approved by the Chief Executive Officer. Other equivalencies are approved by authorized management with Quality Assurance concurrence. The evaluation and approval are retained as quality assurance records.

2.5.2 Inspection, Test, and Nondestructive Examination Personnel

Inspection and test personnel are qualified for the method, discipline, equipment, and acceptance responsibility assigned. Initial capability is established through evaluation of education, experience, training, examination when required, and demonstration of capability. Qualification identifies the activities authorized and any physical, technical, or supervision limitations.

The performance of inspection and test personnel is reevaluated at intervals not exceeding three years. Personnel performing nondestructive examination are qualified and certified in accordance with the applicable code, standard, specification, or design criterion invoked for the activity. The implementing procedure identifies the applicable qualification standard, edition, method, level, examination, vision, experience, training, certification, and recertification requirements.

2.5.3 Auditors, Lead Auditors, and Technical Specialists

Auditors, lead auditors, and technical specialists are qualified in accordance with Section 18.3 and NQA-1-2022 Requirement 2. Qualifications are based on the assigned audit function and include applicable training, audit participation, technical competence, communication capability, examination, maintenance of proficiency, annual evaluation, and requalification. A technical specialist used for an audit is qualified in the applicable discipline and receives sufficient orientation to the audit method and QAP requirements.

2.5.4 Qualification Records and Management Depth

Qualification and certification records identify the individual, employer or responsible organization, authorized activities, qualification basis, education and experience, training, examinations and demonstrations, evaluator and approving authority, effective and expiration dates, limitations, maintenance of proficiency, reevaluations, suspensions, and requalification. Records are controlled under Section 17.

Management provides sufficient qualified depth or documented succession and delegation arrangements to maintain required authority and program implementation during absences, vacancies, organizational changes, or project transitions.

2.6 Qualification of Legacy Information

Legacy information shall not be used as a verified design input, acceptance basis, or other safety-related quality evidence until its adequacy has been evaluated and documented under the QAP.

The evaluation identifies:

1. the origin, purpose, and intended safety-related use of the information;

2. the requirements and controls under which the information was developed;
3. available records, traceability, assumptions, methods, and limitations;
4. the technical and quality significance of the information; and
5. the additional actions necessary to establish reasonable assurance of adequacy.

Acceptance methods may include independent technical review, design verification, comparison with independent information, validation against test or operating data, confirmation testing, re-performance of calculations, software verification and validation, supplier evaluation, inspection, or other documented methods appropriate to the information and its intended use.

The responsible technical organization approves the technical basis for acceptance. Quality Assurance verifies that the qualification process was performed in accordance with approved controls. Limitations, conditions of use, and unresolved uncertainties are documented and controlled. Accepted legacy information becomes a controlled design input or quality assurance record, as applicable.

2.7 Corrective Action and Continual Improvement

Personnel identify conditions adverse to quality and enter them into the corrective action program. Apollo Atomics evaluates conditions, corrects deficiencies, identifies causes of significant conditions adverse to quality, prevents recurrence, evaluates trends, and verifies corrective action effectiveness in accordance with Section 16.

Management uses audit results, assessments, performance information, operating and industry experience, and employee feedback to improve the effectiveness of the QAP. Program improvement does not authorize reduction of regulatory or QAPD commitments without the required review and approval.

2.8 QAPD Issuance and Changes

The Director, Quality Assurance prepares and maintains this QAPD. The Chief Executive Officer approves initial issuance and revisions.

Organizational titles may be changed without revising this QAPD when the functional responsibilities, authority, independence, and reporting relationships described in the QAPD are not reduced.

2.9 NQA-1 Commitment

In establishing and implementing the QAP, Apollo Atomics commits to ASME NQA-1-2022, Part I, Requirement 2, "Quality Assurance Program," as supplemented and clarified by this QAPD and applicable NRC regulatory positions. Commitments, clarifications, and exceptions applicable to specific activities are stated in the corresponding sections of this QAPD and consolidated in Part IV.

Section 3 - Design Control

3.0 General

Apollo Atomics establishes and implements controlled processes for the design and design changes of SSCs, computer software, test configurations, and other items or activities within the scope of the QAP. Engineering serves as the design authority and retains responsibility for the adequacy and configuration of the design. Design control measures apply to work performed by Apollo and to design work delegated to suppliers, contractors, consultants, and other external organizations.

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. Design change processes and the division of responsibilities for design-related activities are detailed in Apollo and supplier procedures. Changes to design inputs, final designs, and field changes 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 Apollo design organization or by other organizations so authorized by Apollo.

The responsible design organization establishes responsibilities for preparing, reviewing, approving, verifying, releasing, revising, and maintaining design documents. Engineering retains responsibility for the adequacy of design work delegated to an external organization and for acceptance of the resulting design outputs.

3.1 Design Verification

Apollo design processes provide for 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 the original design.

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.

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, alternative 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.

Apollo normally completes design verification activities 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. When qualification testing is used as a design verification method:

1. the test configuration and the design feature being verified are identified;
2. test prerequisites, instrumentation, acceptance criteria, and evaluation responsibilities are established;
3. test conditions simulate the most adverse design conditions applicable to the feature being verified;
4. operating modes and environmental conditions are considered;
5. scaling relationships and uncertainty are evaluated when models or mockups are used;
6. features not verified by the test are verified by another method; and
7. test results and any resulting design modifications are evaluated, documented, and reverified as necessary.

Verification comments are resolved and affected design outputs are revised and reverified before final release. The verifier, verification method, scope, results, and approval are documented as quality assurance records.

3.2 Design Records, Changes and Configuration Control

Apollo maintains records sufficient to provide evidence that the design was properly accomplished. These records include the final design output and any revisions thereto, as well as a record of the important design steps (e.g., calculations, analyses and computer programs) and the sources of input that support the final output. Facility design drawings reflect the properly reviewed and approved configuration of the facility for safety-related functions.

Design changes, including supplier changes, field changes, temporary changes, changes resulting from verification, and changes associated with nonconforming-item dispositions of repair or use-as-is, are subject to design controls commensurate with those applied to the original design.

The evaluation of a design change identifies affected design inputs, analyses, interfaces, software, test requirements, procurement documents, fabrication or construction work, licensing-basis information, and previously completed verification. Changes are reviewed and approved by the organization that

approved the original design unless Apollo Atomics designates another organization with demonstrated competence and adequate understanding of the original requirements and design intent.

Approved changes are incorporated into affected design documents and configuration-controlled information. Organizations and personnel whose work is affected by a change receive the approved information before performing the affected activity.

3.3 Computer Software

The QAPD governs the development, procurement, testing, maintenance, control, and use of computer applications and digital equipment software when used in safety-related applications and designated nonsafety-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. Apollo and its suppliers are responsible for developing, approving, and issuing procedures, as necessary, to control the use of such computer applications and digital equipment software.

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.

Apollo Atomics applies ASME NQA-1-2022, Part II, Subpart 2.7 to computer software used to perform or support safety-related activities when the software's function or output can affect quality. Applicable software includes design-analysis software, scientific and engineering calculation software, test and data-acquisition software, software used to process or evaluate acceptance data, and digital-equipment software when included within the QAP scope.

Software is identified and classified based on its intended use and effect on safety. Computer programs used for design analysis are verified and accepted before use, or the results are independently verified for each application. The responsible technical organization documents the program version, applicability, validation basis, limitations, user-controlled inputs, and conditions of use. Software changes are evaluated, approved, tested, and released under configuration control before use in a safety-related application.

Commercial-grade software proposed for safety-related use is evaluated and accepted under approved commercial-grade dedication controls before use. Software developed or supplied by an external organization is subject to applicable procurement, technical review, acceptance, configuration, and access requirements.

3.4 Design and Test Setpoint Control

Instrument, equipment, protection, control, alarm, interlock, software, and test setpoints are controlled when they can affect a safety-related function, an acceptance determination, a design or accident-analysis assumption, test validity, or a design basis licensing conclusion. Setpoint controls apply to permanent and temporary setpoints and to setpoints established by Apollo Atomics, a supplier, a test facility, or another design organization.

Approved implementing documents:

1. identify the organization and positions responsible for calculating, reviewing, approving, implementing, independently verifying when required, and revising setpoints;
2. establish traceability to applicable design inputs, analyses, assumptions, operating or test conditions, instrument characteristics, calibration information, uncertainty allowances, limits, acceptance criteria, and configuration;
3. ensure that setpoints and changes remain consistent with the approved design basis, safety analysis, test basis, equipment qualification, and credited function;
4. control setpoint calculations, software, data sources, interfaces, changes, temporary values, restoration, and affected procedures or documents;
5. provide qualified personnel with timely access to the approved setpoint information needed to design, test, operate, inspect, calibrate, maintain, or evaluate the affected item or activity; and
6. preserve the calculation, review, approval, implementation, verification, test, calibration, change, and restoration records necessary to reconstruct the setpoint basis and status.

A setpoint change is processed as a design or test-configuration change when it can affect the approved design, test basis, acceptance criteria, safety function, licensing-basis information, or previously accepted results. Temporary setpoints are uniquely identified, time- or condition-limited, periodically reviewed when necessary, and removed or incorporated into the permanent configuration under approved controls. Setpoint discrepancies are evaluated for past operability, test validity, affected data, design conclusions, and regulatory-reporting implications, as applicable.

3.5 NQA-1 Commitment

In establishing its program for design control and verification, Apollo Atomics commits to ASME NQA-1-2022, Part I, Requirement 3, "Design Control," and, for applicable computer software, Part II, Subpart 2.7, "Quality Assurance Requirements for Computer Software for Nuclear Facility Applications," as supplemented and clarified by this QAPD and applicable NRC regulatory positions. When subsurface investigations generate information within the QAP scope, Apollo Atomics also applies the applicable provisions of Part II, Subpart 2.20. No exception is taken in this section.

Section 4 - Procurement Document Control

4.0 General

Apollo establishes and implements the necessary measures and governing procedures to assure that purchased items, computer programs, and services are subject to appropriate quality and technical requirements. 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:

- Where original technical or quality assurance requirements cannot be determined, an engineering evaluation is conducted and documented by qualified staff to establish appropriate requirements and controls to assure that interfaces, interchangeability, safety, fit, and function, as applicable, are not adversely affected or contrary to applicable regulatory requirements.
- Applicable technical, regulatory, administrative, quality, and reporting requirements (such as specifications, codes, standards, tests, inspections, special processes, and 10 CFR Part 21) are invoked for procurement of items and services. 10 CFR Part 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 Apollo's approved QA program).

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 documentation.

4.1 NQA-1 Commitment and Clarifications

In establishing controls for procurement documents, Apollo Atomics commits to ASME NQA-1-2022, Part I, Requirement 4, "Procurement Document Control," as supplemented and clarified by this QAPD and applicable NRC regulatory positions.

The following clarifications apply:

1. A supplier performing a service may work under the Apollo Atomics QAP and applicable implementing procedures instead of maintaining a separate QAP when Apollo Atomics establishes and controls the supplier's responsibilities and activities.
2. Review of the technical and QAP requirements of a procurement document may be satisfied through documented review of the procurement specification when that specification contains or references all applicable technical and QAP requirements of the procurement.
3. Procurement documents for commercial-grade items or services intended for safety-related use contain the technical and quality requirements necessary to support dedication in accordance with Section 7.

These clarifications do not reduce Apollo Atomics' responsibility to ensure that applicable requirements are included in procurement documents before award and are maintained through procurement-document changes.

Section 5 - Instructions, Procedures, and Drawings

5.0 General

Apollo Atomics establishes and implements measures to ensure that activities affecting quality are prescribed by and performed in accordance with documented instructions, procedures, drawings, specifications, plans, or other controlled work documents appropriate to the circumstances. These documents include or reference quantitative or qualitative acceptance criteria sufficient to determine that the activity has been satisfactorily accomplished. Documents are prepared and controlled according to Part II, Section 6. In addition, means are provided to disseminate instructions of both general and continuing applicability, as well as those of short-term applicability.

The type and level of detail of a work-controlling document are based on the safety and quality significance of the activity, complexity, work environment, required sequence, consequences of error, frequency of performance, personnel proficiency, and need to obtain consistent and reproducible results. Skill of the craft, education, training, or experience may supplement a controlled document but shall not replace requirements, acceptance criteria, or controls necessary to assure quality.

5.1 Procedure Use and Adherence

Apollo's policy is that procedures are followed, and the requirements for use of procedures have been established in administrative procedures. Where procedures cannot be followed as written, provisions are established for making changes in accordance with Part II, Section 6. Personnel shall use the current approved revision of the applicable work-controlling document and perform the activity as written, unless documented otherwise in the procedure. The governing procedure identifies whether the document must be present and followed step by step, may be used as a general instruction by qualified personnel, requires the user to be proficient in the procedure such that the steps need to be committed to memory, or requires sign-off, initials, electronic authentication, or independent verification of designated steps.

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. Entries made during performance are legible, attributable, and completed as the activity progresses. Changes to completed entries preserve the original information and identify the person making the change, the date, and the basis, as appropriate.

Measures are established to address the applicable content of procedures as described in Part II of NQA-1-2022.

If a document cannot be followed as written, work is paused at a safe and controlled point. The discrepancy is evaluated, affected items and information are controlled, and the document is changed under Section 6 before work resumes. Personnel shall not use informal instructions, unauthorized redlines, or workarounds to bypass approved requirements, hold points, or acceptance criteria.

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.

5.2 Review and Improvement

Users may provide feedback on the clarity, correctness, and effectiveness of instructions and work documents. Feedback that could affect completed or ongoing work is promptly evaluated under the corrective action, design control, or document control process, as applicable. Documents are revised or canceled when requirements, methods, organizational interfaces, equipment, software, or lessons learned make the existing document inaccurate or unsuitable.

Periodic review frequency is established by implementing procedures based on use, change history, operating or project experience, and safety or quality significance. A controlled document is reviewed before use when its continued applicability is uncertain or when changes to the affected item, activity, organization, or requirement may have invalidated it.

5.3 NQA-1 Commitment

In establishing controls for instructions, procedures, and drawings, Apollo Atomics commits to ASME NQA-1-2022, Part I, Requirement 5, "Instructions, Procedures, and Drawings," as supplemented and clarified by this QAPD and applicable NRC regulatory positions. No exception is taken in this section.

Section 6 - Document Control

6.0 General

Apollo Atomics establishes and implements measures to control the preparation, review, approval, issuance, distribution, use, and revision of documents that specify quality requirements, prescribe activities affecting quality, or provide information necessary to perform those activities correctly. Document controls apply regardless of whether the document is maintained on paper, in an electronic document-management system, or by another approved medium.

The document control system ensures that correct and current documents are available at the point of use, that obsolete or superseded documents are prevented from unintended use, and that document status and revision history are traceable.

6.1 Scope of Document Control

Controlled documents include, as applicable:

1. this QAPD and QAP implementing policies, procedures, and instructions;
2. design inputs, calculations, analyses, specifications, drawings, models, interface documents, and design-change documents;
3. software requirements, configuration documents, user instructions, verification and validation plans, and approved software lists;
4. procurement specifications, purchase orders, contracts, supplier-quality requirements, and procurement changes;
5. supplier-generated design, fabrication, inspection, test, nonconformance, and quality documents required for Apollo Atomics review, approval, or use;
6. fabrication travelers, work instructions, construction and installation procedures, and special-process procedures;
7. inspection plans, test plans and procedures, calibration procedures, acceptance criteria, and data-reduction methods;
8. licensing-support test requirements, configurations, instrumentation lists, software identification, data-processing instructions, and approved changes;
9. nonconformance, corrective action, audit, surveillance, and assessment procedures and forms; and
10. other documents identified by the responsible organization as necessary to control activities affecting quality.

Quality assurance records are controlled in accordance with Section 17 after the document is completed and designated as a record. A document may be subject to both document control and records control during different stages of its lifecycle.

The following document controls will be applied:

- Identification of controlled documents
- Specified distribution of controlled documents for use at the appropriate location
- A method to identify the correct document (including revision) to be used and control of superseded documents
- Identification of individuals 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 documents are being used
- A method to provide feedback from users to improve procedures and work instructions
- Coordinating and controlling interface documents and procedures

6.2 Identification, Preparation, Review, and Approval

Each controlled document is uniquely identified and includes or is traceable to its title, revision or version, status, effective date, responsible organization, and approval. The responsible organization assigns qualified preparers, reviewers, and approvers with access to the pertinent background information and an adequate understanding of the document's purpose and requirements.

Documents are reviewed for technical adequacy, completeness, correctness, consistency with affected documents and interfaces, incorporation of applicable QAP requirements, and suitability for use before approval and issuance. Review is performed by an individual other than the preparer when required by the applicable implementing procedure or technical control. Quality Assurance or personnel qualified in QA practices review and concur with the QA-related aspects of designated documents. This review is documented and signifies concurrence by the reviewer.

Approval is provided by authorized personnel before a controlled document is issued for use. Electronic approvals and signatures are attributable to the approving individual, protected from unauthorized use, and retained with the controlled document or associated record.

6.3 Document Changes

Changes to controlled documents are reviewed and approved by the same organizations that performed the original review and approval unless Apollo Atomics designates another qualified and authorized organization. A designated replacement organization has access to the pertinent background information and demonstrates adequate competence and understanding of the original requirements and intent.

The change process identifies affected documents, activities, interfaces, items, software, suppliers, and completed or ongoing work. Approved changes are issued and distributed before affected work is performed. When a change affects work already completed, the responsible organization evaluates the work and documents any required re-performance, reinspection, retest, design verification, or corrective action.

Implementing procedures may define minor changes limited to inconsequential editorial corrections that do not alter applicability, meaning, intent, technical content, quality requirements, acceptance criteria, or commitments. The permitted change types and authorized approvers are specifically defined. A change is processed as a technical change whenever its classification is uncertain. 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.

Temporary changes are uniquely identified, reviewed and approved with controls commensurate with the original document, communicated to affected users, and assigned an expiration date or other closure condition. Temporary changes are incorporated into the permanent document or canceled within the established period.

6.4 NQA-1 Commitment

In establishing provisions for document control, Apollo Atomics commits to ASME NQA-1-2022, Part I, Requirement 6, "Document Control," as supplemented and clarified by this QAPD and applicable NRC regulatory positions. No exception to is taken in this section.

Section 7 - Control of Purchased Material, Equipment, and Services

7.0 General

Apollo Atomics establishes and implements measures to ensure that purchased material, equipment, computer software, and services conform to approved procurement documents to assure conformance with specified requirements. Controls apply to items and services purchased directly by Apollo Atomics and through contractors or sub-tier suppliers and extend from procurement planning and supplier selection through performance monitoring, acceptance, release, and records turnover.

The extent and rigor of purchaser control are based on the item's or service's importance to safety, complexity, quality risk, quantity, procurement frequency, supplier responsibility, and demonstrated performance. Grading does not eliminate controls required by Appendix B or other applicable regulatory requirements.

7.1 Acceptance of Items and Services

Before acceptance, release, installation, use, or reliance on a purchased item or service, Apollo Atomics verifies that applicable procurement, inspection, test, documentation, and records requirements have been satisfied consistent with the item or service's importance to safety, complexity, quantity, and the frequency of procurement. Acceptance is performed using one or more of the following methods, as appropriate:

- review and validation of a supplier certificate of conformance;
- Source verification, surveillance, or inspection;
- receiving inspection;
- post-installation or post-delivery testing;
- technical verification or independent review of data, calculations, analyses, software results, or other service outputs; or
- another method authorized by approved procedures and consistent with the procurement requirements.

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 periodically. 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.
- Apollo may utilize audits conducted by outside organizations for supplier qualification provided that the scope and adequacy of the audits meet Apollo 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 ASME, Nuclear Procurement Issues Committee (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

Receiving inspection verifies, as applicable, item identity, configuration, quantity, physical and dimensional characteristics, required markings and traceability, documentation, cleanliness, preservation, shelf life, freedom from shipping damage, and indicators of counterfeit, fraudulent, or suspect items. Receipt inspection is coordinated with the review of supplier-furnished documentation.

Services are accepted through technical verification of the resulting information or work, surveillance or audit of the activity, review of objective evidence, inspection or test, or a combination of methods adequate to demonstrate conformance.

Documentary evidence of conformance is available to the responsible Apollo Atomics organization and at the location where the item is installed or used before installation or use. Approved electronic records accessible from that location may satisfy this availability requirement. The evidence identifies the specific procurement requirements met and is retained under Section 17.

Nonconformances in supplied items are addressed in Section 15 of this part.

7.2 Commercial-Grade Items and Services

Commercial-grade items or services identified for safety-related use are dedicated under approved controls that satisfy applicable provisions of 10 CFR Part 21, Appendix B to 10 CFR Part 50, and ASME NQA-1-2022, Part II, Subpart 2.14.

Before dedication, qualified Engineering personnel complete and approve a technical evaluation that:

1. confirms that the design and intended safety-related application are adequately defined;
2. identifies the item's or service's safety function and credible failure modes;
3. identifies critical characteristics that provide reasonable assurance the item or service will perform its intended safety function;
4. establishes acceptance methods and criteria for those characteristics;

5. identifies required traceability, sampling, supplier controls, tests, inspections, analyses, and records; and
6. addresses changes, substitutions, known problems, and limitations affecting the item or service.

Acceptance methods may include special tests and inspections, a commercial-grade survey, source verification, acceptable supplier or item performance history, or a combination of methods. The dedication process is complete only after the required activities and records have been reviewed and accepted and the item or service is designated for use as a basic component. Apollo Atomics assumes applicable 10 CFR Part 21 responsibilities for items and services it dedicates.

Commercial-grade design and analysis software intended for safety-related use is controlled under Sections 3 and 7 of this part and is dedicated using an NRC-endorsed method adopted in Part IV or another NRC-accepted method.

7.3 NQA-1 Commitment and Clarifications

In establishing controls for purchased items and services, Apollo Atomics commits to ASME NQA-1-2022, Part I, Requirement 7, "Control of Purchased Items and Services," and, when commercial-grade dedication is used, Part II, Subpart 2.14, "Quality Assurance Requirements for Commercial Grade Items and Services," as supplemented and clarified by this QAPD and applicable NRC regulatory positions.

The following clarifications apply:

- **Prior approval.** Apollo considers that 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 Apollo are not required to be evaluated or audited.
- **Supplier oversight.** Apollo Atomics implements the Regulatory Guide 1.28, Revision 6 positions for external audits and annual supplier evaluations.
- **Laboratory accreditation.** When accreditation is used in lieu of a commercial-grade survey for calibration or testing services, Apollo Atomics implements NEI 14-05A, Revision 1, as endorsed by Regulatory Guide 1.28, Revision 6, and does not rely on NQA-1-2022, Part II, Subpart 2.19 for that purpose.
- **Electronic records.** Approved electronic records accessible at the installation or use location satisfy documentary-evidence availability as stipulated by NQA-1-2022; Apollo Atomics retains responsibility for timely access, legibility, authentication, retention, and turnover.
- **Commercial-grade dedication.** Apollo commits to NQA-1-2022, Section 700, provided commercial grade items, quality verification requirements are established and described in Apollo documents to provide the necessary assurance an item will perform satisfactorily in service. The Apollo 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. If a CG dedicated item is designated as safety-related, Apollo assumes 10 CFR Part 21 reporting requirements.

Section 8 - Identification and Control of Items

8.0 General

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

8.1 NQA-1 Commitment

In establishing controls for identification and control of items, Apollo Atomics commits to ASME NQA-1-2022, Part I, Requirement 8, "Identification and Control of Items," as supplemented and clarified by this QAPD and applicable NRC regulatory positions. No exception is taken in this section.

Section 9 - Control of Special Processes

9.0 General

Apollo Atomics establishes and implements 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. These provisions include assuring that special processes are accomplished by qualified personnel using qualified procedures and equipment. Personnel are qualified and special processes are performed in accordance with applicable codes, standards, specifications, criteria or other specially established requirements. Special processes are those where the results are highly dependent on the control of the process or the skill of the operator, or both, and for which the specified quality cannot be fully and readily determined by inspection or test of the final product.

9.1 NQA-1 Commitment

In establishing controls for special processes, Apollo Atomics commits to ASME NQA-1-2022, Part I, Requirement 9, "Special Processes," as supplemented and clarified by this QAPD and applicable NRC regulatory positions. No exception is taken in this section.

Section 10 - Inspection

10.0 General

Apollo Atomics establishes and executes a program that provides 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. Inspection may also be applied to items, services, and activities affecting plant reliability and integrity. Inspections may include source, receipt, in-process, final, construction, installation, modification, maintenance, and other inspections appropriate to the lifecycle phase and activity. Inspections are carried out by properly qualified individuals independent of those who performed or directly supervised the work. Inspection results are documented.

10.1 Inspection Personnel and Qualifications

Apollo establishes policies such that inspection personnel are indoctrinated, trained, qualified, certified when required, and authorized for the method and scope of inspection performed. Qualifications are maintained current and documented in accordance with Section 2 of this part and applicable codes, standards, and implementing procedures. These qualification programs are applied to individuals performing quality inspections regardless of the functional group where they are assigned.

The person performing an acceptance inspection does not inspect work that the person performed or directly supervised. When an inspection requires specialized technical judgment, the inspector has access to qualified technical support without transferring the acceptance decision to the individual who performed or directly supervised the work.

10.2 Inspection Program

The Apollo 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 an Apollo facility, (3) for final acceptance of fabricated and/or installed items during construction, and (4) upon receipt of items for a facility.

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. 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.

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, as applicable.

Inspection records are controlled and retained in accordance with Section 17 of this part.

10.3 NQA-1 Commitment and Clarification

In establishing inspection controls, Apollo Atomics commits to ASME NQA-1-2022, Part I, Requirement 10, "Inspection," as supplemented and clarified by this QAPD and applicable NRC regulatory positions.

When Apollo Atomics performs or controls installation, inspection, or testing of power, instrumentation, or control equipment within the QAP scope, it applies the applicable provisions of ASME NQA-1-2022, Part II, Subpart 2.4. When Apollo Atomics performs or controls installation, inspection, or testing of mechanical equipment or systems within the QAP scope, it applies the applicable provisions of Part II, Subpart 2.8. The applicable requirements are identified during design, procurement, and work planning and are incorporated into approved procedures, inspection plans, test documents, and records requirements before the affected activity begins.

When installation, inspection, or testing of structural concrete, structural steel, soils, or foundations is within the QAP scope, Apollo Atomics also commits to the applicable provisions of ASME NQA-1-2022, Part II, Subpart 2.5, "Quality Assurance Requirements for Installation, Inspection, and Testing of Structural Concrete, Structural Steel, Soils, and Foundations for Nuclear Facilities." Consistent with Regulatory Guide 1.28, Revision 6, if a code or standard referenced or invoked by Subpart 2.5 is superseded or canceled, Apollo Atomics will submit a proposed alternative for NRC review and approval, as appropriate, before continued use of the superseded or canceled code or standard or use of the proposed alternative.

Section 11 - Test Control

11.0 General

Apollo Atomics establishes and executes 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. 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, and in-service tests, 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. Test results are documented 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.

Except for computer program testing, which is addressed in Section 11.1, tests are performed and results documented in accordance with applicable technical and regulatory requirements, including those described in the Technical Specifications and SAR. 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 of this part.

11.1 Commitment to Computer Program Testing

Apollo establishes and implements provisions to assure that computer software used in applications affecting safety is prepared, documented, verified and tested, and used such that the expected output is obtained and configuration control maintained. To this end Apollo commits to compliance with the requirements of NQA-1-2022, Requirement 11.

Computer programs within the QAP scope are tested to verify that they correctly implement approved software requirements and produce valid results for their documented permitted use. Testing addresses, as applicable, normal and abnormal conditions, boundary conditions, credible failures, unintended functions, interfaces, installation, hardware and operating-system environment, and changes.

In-use testing or other controlled confirmation of acceptable performance is performed when required by the approved software classification and intended use, including after installation on a different platform or after a change that could affect performance. Computer program test plans, cases, procedures, results, discrepancies, evaluations, and approvals are controlled as quality assurance records.

11.11 NQA-1 Commitment

In establishing test controls, Apollo Atomics commits to ASME NQA-1-2022, Part I, Requirement 11, "Test Control," as supplemented and clarified by this QAPD and applicable NRC regulatory positions. For testing of computer programs within the QAP scope, Apollo Atomics also commits to the applicable provisions of ASME NQA-1-2022, Part II, Subpart 2.7, "Quality Assurance Requirements for Computer Software for Nuclear Facility Applications." No exception is taken in this section.

Section 12 - Control of Measuring and Test Equipment

12.0 General

Apollo Atomics establishes and implements measures to select, identify, control, calibrate, adjust, maintain, and use measuring and test equipment (M&TE) that provides data used to verify conformance to specified requirements or to support information within the QAP scope. M&TE includes, as applicable, tools, gages, instruments, sensors, reference and transfer standards, nondestructive examination equipment, test equipment, data-acquisition channels, and associated devices that affect measurement quality; these devices Provide data to verify acceptance criteria are met or information important to safe plant operation.

M&TE is controlled at Apollo Atomics facilities, supplier and factory locations, laboratories, test facilities, storage areas, and project sites. Organizations performing calibration services are controlled under Sections 4 and 7 of this part.

12.1 Selection and Identification of Installed Devices

M&TE is selected to provide the type, range, accuracy, precision, resolution, response, stability, and environmental capability necessary for the intended measurement and acceptance criteria. The responsible organization evaluates the combined measurement system, including sensors, signal conditioning, cabling, data-acquisition hardware, software, and reference standards, when those elements affect the validity of the result.

Controlled M&TE is uniquely identified and is marked, tagged, labeled, or otherwise controlled to indicate calibration status and traceability to calibration records. Status information identifies, as applicable, the last calibration, due date or approved use interval, limitations, and restrictions. When physical marking is impractical or could interfere with use, the status is maintained in approved documentation or an information system traceable to the equipment.

The calibration and adjustment of these devices is accomplished through the facility maintenance programs to ensure the facility is operated within design and technical requirements. Appropriate documentation will be maintained for these devices to indicate the control status, when the next calibration is due, and identify any limitations on use of the devices.

12.2 NQA-1 Commitment

In establishing controls for measuring and test equipment, Apollo Atomics commits to ASME NQA-1-2022, Part I, Requirement 12, "Control of Measuring and Test Equipment," as supplemented and clarified by this QAPD and applicable NRC regulatory positions. No exception is taken in this section.

Section 13 - Handling, Storage, and Shipping

13.0 General

Apollo Atomics establishes and implements measures and governing procedures to control the handling, storage, cleaning, packaging, preservation, shipping, receiving, and related movement of items within the QAP scope to prevent inadvertent damage, loss, contamination, and to minimize degradation, or deterioration. Controls apply from initial receipt through fabrication, assembly, storage, transport, installation, testing, and use and are implemented through approved work and inspection instructions, procedures, drawings, specifications, procurement documents, or shipment documents.

The extent of control is established case by case with consideration of the item's function, importance to safety, complexity, size, weight, fragility, cleanliness, environmental sensitivity, limited life, value, configuration, transportation loads, duration of storage, and consequence of damage. 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.

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.

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 Cleanliness and Housekeeping

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.

Cleanliness and housekeeping controls prevent foreign material, contamination, debris, fire hazards, environmental conditions, or work practices from degrading item quality. Approved procedures establish cleanliness requirements appropriate to the item and activity and control work areas, materials, tools, protective coverings, access, waste, combustible material, and closure of systems or components.

Openings, cavities, fluid systems, and clean items are protected during fabrication, assembly, storage, transport, installation, and testing. Foreign-material exclusion controls include, as applicable, tool and material accountability, covers and barriers, inspections, cleaning methods, and documented verification of acceptable cleanliness before closure.

Cleaning methods, chemicals, solvents, water quality, flushing media, tools, and acceptance criteria are specified and controlled to prevent damage or unacceptable residue. Housekeeping controls do not replace the specific cleanliness or process requirements established by design documents, codes, standards, or special-process procedures.

13.2 NQA-1 Commitment and Clarification

In establishing controls for handling, storage, and shipping, Apollo Atomics commits to ASME NQA-1-2022, Part I, Requirement 13, "Handling, Storage, and Shipping," and the applicable provisions of Part II, Subpart 2.2, "Quality Assurance Requirements for Packaging, Shipping, Receiving, Storage, and Handling of Items for Nuclear Facilities," as supplemented and clarified by this QAPD and applicable NRC regulatory positions. Apollo Atomics applies the applicable provisions of Part II, Subpart 2.1, when cleaning of fluid systems or associated components within the QAP scope can affect quality; Part II, Subpart 2.3, "Quality Assurance Requirements for Housekeeping," to housekeeping activities within the QAP scope; and Subpart 2.15, "Quality Assurance Requirements for Hoisting, Rigging, and Transporting Items for Nuclear Facilities," when such activities within the QAP scope can affect quality.

When Subpart 2.1 applies, Apollo Atomics may establish documented cleanliness requirements based on the item's design, material, service, fabrication and installation condition, contamination sensitivity, and intended function rather than relying solely on a generic cleanliness-level classification. Approved documents specify compatible cleaning methods, process controls, environmental controls, inspections, quantitative or qualitative acceptance criteria, foreign-material controls, protection after cleaning, and records necessary to demonstrate acceptable cleanliness before closure, testing, shipment, installation, or use.

Consistent with Regulatory Guide 1.28, Revision 6, etching is not used on nickel alloys, weld areas, or sensitized areas of stainless steel. No exception to NQA-1-2022 Requirement 13 or the applicable provisions of Subparts 2.1, 2.2, 2.3, and 2.15 is taken in this section except for the implementation clarification for Subpart 2.1 stated above.

Section 14 - Inspection, Test, and Operating Status

14.0 General

Apollo Atomics establishes and implements measures and governing procedures to identify and control the inspection, test, and operating status of items, systems, equipment, software, and activities within the QAP scope.

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

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.

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.

14.1 NQA-1 Commitment

In establishing controls for inspection, test, and operating status, Apollo Atomics commits to ASME NQA-1-2022, Part I, Requirement 14, "Inspection, Test, and Operating Status," as supplemented and clarified by this QAPD and applicable NRC regulatory positions. No exception is taken in this section.

Section 15 - Control of Nonconforming Items

15.0 General

Apollo Atomics establishes and implements measures to identify, document, evaluate, control, and disposition items that do not conform to specified requirements to prevent inadvertent installation nor use. These measures prevent inadvertent fabrication, processing, delivery, installation, test, release, or use of a nonconforming item and provide for notification to affected organizations.

Nonconforming items include materials, parts, components, partially fabricated assemblies, test articles, samples, software media, and other items within the QAP scope that depart from specified requirements or whose identity, configuration, condition, documentation, or acceptance status is indeterminate. Errors or deficiencies in design, test, software, procurement, or other quality-affecting information are controlled under the applicable sections of this QAPD and entered into the corrective action program under Section 16 when they constitute conditions adverse to quality.

Instructions require that the individual discovering a nonconformance identify, describe, and document the nonconformance in accordance with the requirements of Part II, Section 16. 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. 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. Significant trends are reported to management in accordance with Apollo procedures, regulatory requirements, and industry standards.

15.1 Regulatory Reporting Interface

The nonconformance process interfaces with Apollo Atomics' regulatory reporting program so that deviations, failures to comply, potential defects, and significant breakdowns in the quality assurance program are promptly identified and routed for evaluation under 10 CFR Part 21 and 10 CFR 50.55(e), as applicable to Apollo Atomics' regulatory status and activities.

Nonconformance disposition, corrective-action significance, and regulatory reportability are separate determinations. Acceptance, repair, rework, rejection, closure, or downgrading of a nonconformance does not eliminate an applicable evaluation, notification, reporting, or recordkeeping obligation. Apollo Atomics establishes responsibility and timely information transfer among the technical, Quality Assurance, licensing, legal, procurement, and responsible-officer functions and preserves each supplier's independent regulatory responsibilities.

15.2 NQA-1 Commitment

In establishing controls for nonconforming items, Apollo Atomics commits to ASME NQA-1-2022, Part I, Requirement 15, "Control of Nonconforming Items," as supplemented and clarified by this QAPD and applicable NRC regulatory positions. No exception is taken in this section.

Section 16 - Corrective Action

16.0 General

Apollo Atomics establishes and implements a corrective action program to promptly identify, document, classify, evaluate, control, and correct conditions adverse to quality. Conditions adverse to quality include failures, malfunctions, deficiencies, deviations, defective material or equipment, nonconformances, procedure or process deficiencies, human-performance issues, inadequate requirements, adverse trends, and other conditions that could affect the quality of an item, activity, service, information, or safety-related function. Apollo 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. Apollo procedures shall 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, Apollo 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.

In the case of suppliers working on safety-related activities, or other similar situations, Apollo may delegate specific responsibilities for corrective actions but Apollo maintains responsibility for the effectiveness of corrective action measures. All personnel performing or supporting work within the QAP scope are responsible for promptly identifying and reporting known or suspected conditions adverse to quality. Apollo Atomics maintains a low threshold for issue reporting and provides methods to raise quality concerns without fear of retaliation. Reporting a condition does not require the individual to determine its cause, significance, reportability, or final corrective action.

16.1 Regulatory Reporting Interface

The corrective action program interfaces with Apollo Atomics' regulatory reporting program to ensure that information reasonably indicating a deviation, failure to comply, defect, or significant breakdown in the quality assurance program is promptly preserved and routed for evaluation under 10 CFR Part 21 and 10 CFR 50.55(e), as applicable to Apollo Atomics' regulatory status and activities.

Approved procedures establish evaluation ownership, discovery and information-transfer controls, responsible-officer interfaces, applicable time limits, interim reports, notifications, reports, purchaser or licensee communications, supplier and dedicating-entity responsibilities, and records. Technical, Quality Assurance, licensing, legal, procurement, and executive functions provide the information and reviews needed for timely decisions.

The classification of a condition as or as not significant under Appendix B does not by itself determine regulatory reportability. Conversely, correction, closure, acceptance, or a determination that an item can perform its function does not terminate an otherwise applicable regulatory evaluation. Apollo Atomics' program controls do not relieve suppliers, dedicating entities, directors, responsible officers, applicants, permit holders, or licensees of their independent obligations.

16.2 NQA-1 Commitment

In establishing corrective action controls, Apollo Atomics commits to ASME NQA-1-2022, Part I, Requirement 16, "Corrective Action," as supplemented and clarified by this QAPD and applicable NRC regulatory positions. No exception is taken in this section.

Section 17 - Quality Assurance Records

17.0 General

Apollo Atomics establishes and implements the necessary measures and governing procedures to ensure that sufficient records of items and activities affecting quality are developed, reviewed, approved, issued, used, and revised to reflect completed work. The provisions of such procedures establish the scope of the records retention program for Apollo and include requirements for records administration, including receipt, preservation, retention, storage, safekeeping, retrieval, access controls, user privileges, and final disposition of quality assurance activity records.

17.1 Records Classification and Retention

Apollo establishes measures that ensure that sufficient records of completed items and activities affecting quality are appropriately stored. Records of activities for design, engineering, procurement, manufacturing, construction, inspection and test, installation, maintenance, modification, decommissioning, and audits and their retention times are defined in appropriate procedures.

Quality assurance records are classified as lifetime or nonpermanent in accordance with approved procedures and applicable regulatory requirements. Apollo Atomics maintains a controlled retention schedule that identifies the record series, owner, custodian, retention classification and period, starting event, storage location or system, access controls, and final disposition.

Applicable statutes, regulations, orders, license conditions, codes, standards, contractual requirements, litigation or investigation holds, regulatory-reporting requirements, and NRC commitments establish minimum retention periods when they are longer or otherwise more restrictive than Apollo Atomics' schedule. A hold suspends normal disposition until formally released by authorized personnel. Electronic and paper records in the same classification are subject to the same retention period.

17.2 Electronic Records Systems

Apollo Atomics manages electronic quality assurance records consistent with Regulatory Guide 1.28, Revision 6, and the 2011 versions of Nuclear Information and Records Management Association Technical Guides TG 11, "Authentication of Records and Media"; TG 15, "Management of Electronic Records"; TG 16, "Software Quality Assurance Documentation and Records"; and TG 21, "Required Records Protection, Disaster Recovery and Business Continuation." Optical-disk records, if used, are controlled consistent with applicable NRC guidance.

17.3 Supplier and Delegated-Work Records

Procurement documents identify the records suppliers and sub-tier suppliers must generate, retain, protect, make available, and turn over to Apollo Atomics. Requirements address format, content, authentication, indexing, retention classification and period, electronic-record controls, submittal timing, right of access, corrections, disposition, and notification before a supplier changes custody, system, location, ownership, or business status.

Apollo Atomics reviews supplier records for acceptability and maintains the records itself or establishes documented arrangements that provide assured access, protection, retrieval, retention, and transfer for the required period. Reliance on a supplier's system does not transfer Apollo Atomics' responsibility for records required to support its items, activities, or licensing basis. Records from delegated work remain subject to Apollo Atomics oversight and audit.

17.4 Design, Software, and Legacy Information Records

Design records preserve final outputs and the important steps and sources that support them, including design inputs, assumptions, methods, analyses, interfaces, reviews, verification, changes, unresolved issues, and configuration relationships. Software records preserve the information needed to identify the approved product, version, configuration, environment, verification and validation basis, problem status, and authorized use.

When information generated before implementation of the QAP is accepted for safety-related design or licensing use, the qualification and acceptance record identifies the information, source, original controls, intended use, identified deficiencies or limitations, evaluation method, technical basis, independent verification, approvals, and resulting configuration or use restrictions. The record does not imply that the original activity was performed under Appendix B controls.

17.5 NQA-1 Commitment

In establishing controls for quality assurance records, Apollo Atomics commits to ASME NQA-1-2022, Part I, Requirement 17, "Quality Assurance Records," and Part II, Subpart 2.17, "Quality Assurance Requirements for Electronic Quality Assurance Records Systems," as supplemented and clarified by this QAPD and the applicable positions of Regulatory Guide 1.28, Revision 6. No exception to these requirements is taken in this section.

Section 18 - Audits

18.0 General

Apollo Atomics establishes and implements a comprehensive program of planned and periodic internal and external audits to verify that activities covered by the QAPD are performed in conformance with the established requirements and performance criteria are met. The audit program itself is periodically reviewed for effectiveness.

Audits are performed in accordance with written procedures and approved plans or checklists by trained and qualified personnel who do not have direct responsibility for the activities being audited. Audit results are documented, reviewed by responsible management, and followed through correction, corrective action, effectiveness verification, and re-audit when indicated.

18.1 Audit Performance

Internal audits of selected aspects of licensing, design, and construction activities are performed with a frequency commensurate with safety significance of the task in question and in a manner which assures that audits of safety-related activities are completed. During the early nuclear development activities, audits will focus on areas including, but not limited to, site investigation, procurement, and corrective action. Areas to be audited include, at a minimum, verification of compliance and effectiveness of implementation of internal rules, procedures, programs for training, retraining, qualification and performance of operating staff, corrective actions, and observation of performance of construction, maintenance, and modification activities, including associated record keeping.

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. The Director, Quality Assurance is responsible for the audit program and has authority to establish and revise the audit schedule, select audit teams, approve lead auditors, obtain access to personnel and records, communicate significant conditions, require responses, verify corrective action, and elevate unresolved matters to executive management. Apollo is responsible for conducting periodic internal to determine the adequacy of programs and procedures (by representative sampling), and to determine if they are meaningful and comply with the overall QAPD.

The results of each audit are reported in writing to the Chief Executive Officer, or designee, as appropriate. Additional internal distribution is made to other appropriate management levels and to management of the internal audited organizations or activities in accordance with approved procedures.

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.

Audits of suppliers of safety-related components and/or services are conducted as described in Section 7.1.

An audit that cannot be completed as scheduled is promptly evaluated for significance, compensatory oversight, management notification, and rescheduling without resetting the underlying required interval unless permitted by the governing requirement.

18.2 Internal Audits

Internal audits of organization and facility activities should 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 each year or at least once during the life of the activity, whichever is shorter.

Internal audits evaluate the adequacy of implementing programs and procedures and the effectiveness of their implementation. Coverage includes, as applicable:

1. organization, authority, independence, resources, management review, and stop-work controls;
2. design, software, procurement, supplier oversight, fabrication, special processes, inspection, testing, M&TE, handling, status, nonconformance, corrective action, and records controls;
3. compliance with applicable regulations, license or permit conditions, codes, standards, commitments, and controlled procedures;
4. indoctrination, training, qualification, requalification, and performance of personnel;
5. observation of work, recordkeeping, electronic-record integrity, retrievability, retention, migration, and recovery;
6. delegated work and interfaces among Apollo Atomics, suppliers, factories, laboratories, test facilities, carriers, and construction locations; and
7. correction and corrective action for prior audit findings, including implementation and effectiveness.

18.3 Auditor Qualification and Independence

Audit personnel are selected and qualified in accordance with approved procedures based on education, experience, training, audit participation, technical knowledge, and have demonstrated capability appropriate to the assigned scope. Training includes audit fundamentals, applicable QAP and regulatory requirements, planning, interviewing, examination and sampling of objective evidence, evaluation, documentation of findings, reporting, follow-up, and closure.

Each audit is led by a qualified lead auditor who organizes and directs the audit, ensures team competence and independence, approves the audit plan or checklist, communicates results, and endorses the report. Technical specialists may support the team when special expertise is needed and are trained in the audit methods applicable to their assignments.

Auditors have sufficient authority and organizational freedom to make the audit meaningful and effective. They do not audit work for which they have direct responsibility and are free from financial,

schedule, production, or supervisory pressures that could impair objectivity. Potential conflicts are disclosed and resolved before assignment.

Lead auditors are qualified and maintain proficiency in accordance with NQA-1-2022 Requirement 2. Apollo Atomics adopts the Regulatory Guide 1.28, Revision 6 alternative under which a prospective lead auditor with comparable industry experience may satisfy the five-audits-in-three-years participation criterion by demonstrating the ability to implement the audit process effectively, organize and report results, and participating in at least one nuclear audit during the preceding year, subject to review and acceptance by the responsible Quality Assurance organization.

Qualification, certification, maintenance of proficiency, annual evaluation, requalification, and records are controlled. Participation in audits, training, and performance feedback are used to maintain suitable proficiency.

18.4 External and Supplier Audits

Apollo Atomics performs or arranges for audits of suppliers and contractors when required to qualify or maintain acceptance of their QAPs and implementation. Supplier QAP audits are performed on a triennial basis unless the procurement falls within the Regulatory Guide 1.28, Revision 6 exception for items that are both relatively simple and standard in design, manufacturing, and testing and adaptable to standard or automated end-product inspection or test after delivery. The basis for using the exception is documented after contract award and supported by the supplier evaluation.

For suppliers subject to triennial audit:

1. the triennial period begins when the audit is performed;
2. the initial audit is performed after sufficient work is completed to demonstrate implementation of a QAP with the scope required for the purchases;
3. a significant enlargement of contract scope or change in methods or controls requires an audit of the modified requirements and begins a new triennial period; and
4. a preaward survey may serve as the first triennial audit only when the same QAP is being implemented for other customers and the survey satisfies the scope, elements, and criteria of a triennial audit.

Apollo Atomics performs or arranges for documented annual supplier evaluations. Evaluations consider supplier-furnished records, certificates, nonconformances and corrective actions; source verifications; previous audits and receiving inspections; experience with identical or similar products; performance trends; changes in organization, ownership, facilities, processes, or QAP; and relevant audits or inspections by customers, third parties, ASME, or the NRC.

During exigent conditions, an extension of up to one year may be applied to the triennial frequency for external audits or surveys where performance is not feasible. This extension is applicable to both domestic and international suppliers. Priority will be given to completing audits or surveys of affected suppliers in order of expiration of the required audit or survey frequency.

Apollo Atomics may use joint, shared, or third-party audits when the scope satisfies Apollo Atomics' needs, the audit team is qualified and independent, the report and supporting information are available,

and Apollo Atomics reviews and accepts the audit's adequacy. Each purchaser remains responsible for the adequacy of an audit on which it relies. An ASME certificate of authorization may provide evidence of a documented program's programmatic adequacy, but Apollo Atomics separately assures effective implementation for the supplied scope.

Adverse supplier performance, significant changes, incomplete implementation, or ineffective corrective action may result in increased audit frequency, focused or for-cause audits, additional source verification or inspection, suspension, or removal from the approved supplier list.

18.5 Audit Records

Audit records include the schedule and revisions; activity evaluations; plans and checklists; auditor qualifications, independence, and assignments; notifications; evidence and sampling; meeting records; reports; findings; audited-organization responses; corrective actions; follow-up; closure and effectiveness evidence; re-audits; supplier evaluations; third-party audit acceptance; and management communications. Audit records are controlled in accordance with Section 17.

18.6 NQA-1 Commitment

In establishing the audit program, Apollo Atomics commits to ASME NQA-1-2022, Part I, Requirement 18, "Audits," and the applicable lead-auditor qualification provisions of Requirement 2, as supplemented and clarified by this QAPD and the applicable positions of Regulatory Guide 1.28, Revision 6. No exception is taken in this section.

Part III - Quality Controls for Nonsafety-Related Structures, Systems, and Components

Section 1 - Nonsafety-Related SSCs with Special Treatment

1.0 General

This Part establishes quality controls for SSCs that are not safety related and are not otherwise subject to Appendix B to 10 CFR Part 50, but are identified through the controlled design and licensing-basis classification process as significant contributors to plant safety, credited to perform a function important to a licensing conclusion, or subject to special treatment by an applicable regulation, license condition, or commitment.

The responsible design organization identifies the safety-significant or credited function and the characteristics or critical attributes necessary to perform that function. Controls from this Part are selected and applied to those functions and attributes in a manner commensurate with their significance, complexity, and performance needs. Selective application under this Part does not remove an Appendix B control from an item or activity that is otherwise within the Part II scope, and it does not change the regulatory classification of an SSC.

Apollo Atomics maintains a controlled list or information system that identifies nonsafety-related SSCs subject to this Part. The classification record identifies or references:

1. the SSC, boundary, configuration, and responsible organization;
2. the safety-significant or licensing-credited function and the basis for its designation;
3. the characteristics or critical attributes necessary for the function;
4. the selected quality controls, acceptance criteria, records, and supplier flow-down;
5. applicable regulations, license conditions, design criteria, analyses, and commitments;
6. interfaces with safety-related SSCs and potential common-cause or support dependencies; and
7. review, approval, change, and removal authorities.

Engineering, acting as the design authority, approves the technical classification basis and selected controls. Regulatory Affairs/Licensing confirms the licensing-basis credit, special-treatment requirement, and applicable commitment. Quality Assurance reviews the classification method and its implementation for consistency with this QAPD and retains authority to audit the process. Changes that could reduce controls, alter a credited function, or remove an SSC from the controlled list receive documented review equivalent to the original classification and are coordinated with applicable licensing-basis change controls.

1.1 Organization

The responsible line organization may perform verification and acceptance activities for SSCs controlled under this Part. A separate Quality Assurance organization is not required to perform those activities unless specified by the classification record, procurement document, implementing procedure, or licensing basis. Personnel performing verification or acceptance are knowledgeable in the applicable discipline and are not assigned when a conflict could prevent an objective evaluation. Quality Assurance retains oversight, access, stop-work, and audit authority.

1.2 Quality Assurance Program

The selected quality controls for non-safety related SSCs are established in the controlled classification record, and approved implementing documents subject to this QAPD. A separate quality assurance program is not required. Suppliers describe and implement the controls flowed down in procurement documents. When Part II processes provide the selected controls without imposing an inappropriate classification, Apollo may use those processes to implement this Part.

1.3 Design Control

Apollo establishes measures ensure that applicable design, functional, performance, interface, environmental, reliability, and licensing requirements are correctly translated into design documents and that deviations are controlled. Design analyses, assumptions, interfaces, software, and changes are controlled to the extent necessary to preserve the identified function and critical attributes. Normal supervisory review by a knowledgeable person may provide design verification unless the classification record requires an independent review or a Part II activity is involved.

1.4 Procurement Document Control

Procurement documents include or reference the functional and performance requirements, critical attributes, acceptance methods, supplier controls, documentation, records, access, reporting, and change-notification requirements necessary to preserve the credited function. Deviations and supplier changes that could affect a critical attribute are submitted for Apollo Atomics review and approval before acceptance or implementation.

1.5 Instructions, Procedures, and Drawings

Activities affecting the identified function or critical attributes are performed using approved instructions, procedures, drawings, work orders, technical manuals, or other controlled documents appropriate to the work. Documents provide sufficient direction, prerequisites, precautions, and qualitative or quantitative acceptance criteria for qualified personnel performing the activity to achieve acceptable functional performance of the SSC.

1.6 Document Control

Apollo provides appropriate controls such that documents specifying requirements or prescribing activities under this Part are reviewed, approved, issued, changed, distributed, and maintained so that correct and current documents are available at the point of use. Superseded documents are removed from use or clearly identified and controlled.

1.7 Control of Purchased Items and Services

Purchased items and services are evaluated and accepted using methods appropriate to the selected controls and critical attributes. Methods may include supplier evaluation, source verification, certificate or record review, receipt inspection, testing, commercial controls, performance history, or combinations of these methods. Acceptance is documented and traceable to the applicable procurement requirements.

1.8 Identification and Control of Items

Items are identified and controlled when necessary to preserve the credited function and prevent substitution, misuse, loss of traceability, expiration, damage, or deterioration. Controls address environmental sensitivity, shelf life, configuration, software or firmware version, material or lot identity, custody, and status when those characteristics affect the required function.

1.9 Control of Special Processes

Special processes, including welding, heat treatment, nondestructive examination, coating, cleaning, or other processes, are controlled using applicable codes, standards, specifications, procedures, personnel qualifications, equipment controls, and acceptance criteria appropriate to the credited function.

1.10 Inspection

Inspections are performed when necessary to verify that an item or activity conforms to specified requirements or that work has been satisfactorily completed. Inspections may be performed by knowledgeable personnel within the line organization unless greater independence is specified. Inspection planning identifies the characteristics, methods, acceptance criteria, records, and action for unacceptable results.

1.11 Test Control

Tests necessary to demonstrate conformance with design, functional, or performance requirements are identified and performed using approved instructions or procedures. Prerequisites, configuration, instrumentation, acceptance criteria, data, anomalies, and results are controlled and recorded. Authorized personnel evaluate the results before the SSC or information is accepted for its credited use.

1.12 Control of Measuring and Test Equipment

M&TE used to accept a critical attribute or demonstrate a credited function is selected, identified, calibrated, maintained, protected, and used at specified intervals or before use against standards of suitable range and accuracy. Out-of-tolerance conditions are evaluated for their effect on prior results and accepted SSCs.

1.13 Handling, Storage, and Shipping

Handling, storage, cleaning, packaging, preservation, shipping, receiving, and custody controls prevent damage, loss, contamination, substitution, or deterioration that could impair the credited function. Special environmental, orientation, lifting, maintenance, shelf-life, security, and preservation requirements are identified and implemented. These controls include appropriate marking or labels, and identification of any special storage or handling requirements.

1.14 Inspection, Test, and Operating Status

Measures identify the inspection, test, configuration, acceptance, and operating status of SSCs controlled under this Part. Status is clear to personnel making release, installation, test, operation,

maintenance, or licensing decisions and prevents inadvertent use of unacceptable or indeterminate items or information.

1.15 Control of Nonconforming Items

Items and information that do not conform to specified requirements are identified, documented, controlled, and evaluated to prevent inadvertent installation, release, or use. Dispositions receive technical review and approval by personnel with authority and competence in the affected function. Rework, repair, use-as-is, rejection, reinspection, retest, records, and supplier actions are controlled as applicable.

1.16 Corrective Action

Apollo ensures failures, malfunctions, deficiencies, deviations, adverse trends, and nonconformances affecting a credited function or critical attribute are identified, reported, evaluated, corrected, and trended as appropriate. Significance, extent, recurrence, supplier effects, and the need for cause evaluation, corrective action, effectiveness review, or licensing-basis evaluation are determined commensurate with the condition.

1.17 Records

Records are prepared and maintained to furnish evidence that the selected design, procurement, document-control, supplier, inspection, test, status, nonconformance, and corrective-action requirements have been satisfied. Retention and retrievability are based on the continuing need to demonstrate the credited function, applicable regulatory and licensing-basis requirements, and the life of the SSC or activity.

1.18 Management Review and Audits

Apollo employs measures for line management or appropriate designees to periodically review and document the adequacy of the process, including taking any necessary corrective action. Audits independent of line management are not required. Line management is responsible for determining whether reviews conducted by line management or audits conducted by any organization independent of line management are appropriate. If performed, audits are conducted and documented to verify compliance with design and procurement documents, instructions, procedures, drawings, and inspection and test activities. Where the measures of this part are implemented by the same programs, processes, or procedures as the comparable activities of Part II, the audits performed under the provisions of Part II may be used to satisfy the review requirements of this Section.

Section 2 - Nonsafety-Related SSCs Credited for Regulated Events

2.0 Applicability

The Apollo licensing-basis development process determines whether nonsafety-related SSCs are credited to meet requirements associated with fire protection under 10 CFR 50.48, anticipated transients without scram under 10 CFR 50.62, station blackout under 10 CFR 50.63, or another regulated event or condition. This QAPD does not presume that a regulation or event developed for a particular reactor type applies.

When an applicable licensing basis credits a nonsafety-related SSC for one of these functions, Apollo Atomics identifies the SSC in the controlled classification system and applies the quality controls required by the applicable regulation, license condition, NRC-approved alternative, or licensing commitment. Unless an NRC-approved alternative is established:

1. nonsafety-related fire-protection SSCs credited under 10 CFR 50.48 receive the applicable quality controls of Regulatory Guide 1.189, Revision 5, October 2023;
2. nonsafety-related equipment credited under 10 CFR 50.62 receives the applicable quality controls of Generic Letter 85-06; and
3. nonsafety-related equipment credited under 10 CFR 50.63 receives the applicable quality controls of Regulatory Position 3.5 and Appendix A to Regulatory Guide 1.155, Revision 0, August 1988.

The applicable license application will identify specific conformance, alternatives, and affected SSCs (e.g., for an Apollo A-10). Where a listed regulation or guidance is not applicable to a given design or licensing basis, the application states that basis rather than assigning unnecessary special treatment under this QAPD.

Part IV - Regulatory and Quality Assurance Commitments

Section 1 - Commitment Basis and Control

1.0 General

This Part consolidates the regulatory guides, standards, and industry guidance adopted by Apollo Atomics for the design and construction QAP. Applicable regulations remain controlling. A commitment applies only within the scope, conditions, and limitations stated in this QAPD and the referenced document. When a conflict exists, the applicable regulation, license or permit condition, NRC approval, and the specific clarification or exception stated in this QAPD govern in that order.

References within a committed document do not become Apollo Atomics commitments solely because they are cited. A secondary reference is controlling only when incorporated by reference into an applicable regulation, specifically endorsed by the NRC for the intended use and adopted by Apollo Atomics, invoked by the licensing basis or a procurement document, or expressly identified in this QAPD.

Licensing documents (such as a topical report or safety analysis report) will list and evaluate conformance with NRC regulations and guidance applicable to the document in question.

1.1 Appendix B Program Standard

Apollo Atomics commits to ASME NQA-1-2022, Part I, Requirements 1 through 18, as supplemented and clarified by this QAPD and Regulatory Guide 1.28, Revision 6. Part II subparts are commitments only when specifically invoked below or elsewhere in this QAPD. Part III and Part IV of NQA-1 are guidance unless a provision is expressly adopted.

The QAPD implements the applicable requirements of Appendix B to 10 CFR Part 50. Interfaces with 10 CFR Part 21 and 10 CFR 50.55(e) are implemented according to Apollo Atomics' regulatory status, role, and activities. Nothing in this QAPD transfers or limits the independent reporting responsibility of an applicant, licensee, permit holder, supplier, dedicating entity, director, or responsible officer.

1.2 Regulatory Guide 1.28, Revision 6

Apollo Atomics commits to Regulatory Guide 1.28, Revision 6, "Quality Assurance Program Criteria (Design and Construction)," for its endorsement of NQA-1-2022 and the applicable regulatory positions. Apollo Atomics takes no exception to the Regulatory Guide 1.28 positions as documented and adopted by this QAPD. The following implementation provisions are incorporated:

1. the alternative method for qualifying prospective lead auditors with comparable industry experience, subject to the conditions in Section 18.3;
2. use of NEI 14-05A, Revision 1, rather than NQA-1-2022 Subpart 2.19, when laboratory accreditation is used in lieu of a commercial-grade survey;
3. classification and retention of lifetime and nonpermanent records under Section 17;
4. electronic-record controls and the 2011 NIRMA technical guides identified in Section 17;
5. annual or activity-life internal audit coverage, triennial supplier audits, annual supplier evaluations, and purchaser responsibility for shared audits under Sections 7 and 18;

6. the prohibition on etching nickel alloys, weld areas, or sensitized areas of stainless steel under Section 13; and
7. NRC review and approval, as appropriate, before continued use of a superseded or canceled code or standard invoked by NQA-1-2022 Subpart 2.5 or use of a proposed alternative under Section 10.

NQA-1-2022 Subpart 2.19 is not used. Subparts 2.22 and 2.25 are not applicable to the NRC-regulated QAPD.

1.3 NQA-1-2022 Part II Commitments

Apollo Atomics commits to the following NQA-1-2022 Part II subparts for the activities identified:

1. the applicable provisions of Subpart 2.1 when cleaning of fluid systems or associated components within the QAP scope can affect quality, subject to the implementation clarification in Section 13.9;
2. Subpart 2.2 for packaging, shipping, receiving, storage, and handling of items within the QAP scope;
3. the applicable provisions of Subpart 2.3 for housekeeping activities within the QAP scope;
4. Subpart 2.4 when Apollo Atomics performs or controls installation, inspection, or testing of power, instrumentation, or control equipment within the QAP scope;
5. Subpart 2.5 when structural concrete, structural steel, soils, or foundation activities are within the QAP scope, subject to the Regulatory Guide 1.28 position stated in Section 1.2 of this Part;
6. Subpart 2.7 for computer software used to perform or support safety-related activities when its function or output can affect quality;
7. Subpart 2.8 when Apollo Atomics performs or controls installation, inspection, or testing of mechanical equipment and systems within the QAP scope;
8. Subpart 2.14 when commercial-grade items or services are dedicated for safety-related use;
9. Subpart 2.15 when hoisting, rigging, or transporting items within the QAP scope can affect quality;
10. Subpart 2.17 for electronic quality assurance records systems; and
11. Subpart 2.20 when subsurface investigations are performed within the QAP scope.

The implementing organization identifies applicable subparts during planning and procurement and incorporates their requirements into controlled documents before the affected activity begins.

Subpart 2.18 and operating-phase administrative controls are not commitments of this initial design and construction QAPD. Apollo Atomics will evaluate and adopt the applicable operating-phase standard, regulatory-guide, organizational, and administrative-control commitments through a revision or supplement to this QAPD before operating-phase activities begin.

1.4 Commercial-Grade Items, Services, and Software

Apollo Atomics applies Regulatory Guide 1.164, Revision 1, "Dedication of Commercial-Grade Items for Use in Nuclear Power Plants," and Generic Letter 91-05, "Licensee Commercial-Grade Dedication Programs," when applicable to commercial-grade dedication. Commercial-grade design and analysis software intended for safety-related use is accepted in accordance with Regulatory Guide 1.231, Revision 0, or another NRC-accepted method identified in the applicable licensing basis.

When Apollo Atomics elects to use accreditation in lieu of a commercial-grade survey for laboratory calibration or testing services, it commits to 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," subject to its NRC safety evaluation and Regulatory Guide 1.28, Revision 6.

1.5 Regulatory Reporting and Counterfeit, Fraudulent, or Suspect Items

Apollo Atomics applies Regulatory Guide 1.234, Revision 1, "Evaluating Deviations and Reporting Defects and Noncompliance Under 10 CFR Part 21," as applicable to its regulatory status, roles, and activities. Procurement, supplier, nonconformance, and corrective-action processes establish the information-transfer and evaluation interfaces described in Sections 4, 7, 15, and 16.

Apollo Atomics applies Generic Letter 89-02, "Actions to Improve the Detection of Counterfeit and Fraudulently Marked Products," to the extent applicable to procurement and acceptance activities. Implementing controls address counterfeit, fraudulent, and suspect items and information through procurement requirements, source evaluation, traceability, inspection, testing, nonconformance control, corrective action, supplier notification, and regulatory-reporting evaluation.

1.6 Electronic Records Guidance

Apollo Atomics commits to the 2011 editions of NIRMA TG 11, "Authentication of Records and Media"; TG 15, "Management of Electronic Records"; TG 16, "Software Quality Assurance Documentation and Records"; and TG 21, "Required Records Protection, Disaster Recovery and Business Continuation," as endorsed by Regulatory Guide 1.28, Revision 6 and implemented through Section 17.

1.7 Design-Classification and Seismic Guidance

Regulatory Guide 1.26, Revision 6, and Regulatory Guide 1.29, Revision 6, provide NRC guidance relevant to quality-group and seismic classification. Because those classifications depend on the specific design and safety analyses, the applicable license application(s) will identify conformance, alternatives, and the affected SSCs. This QAPD establishes the quality controls applied after classification but does not independently establish the design-basis classification of an SSC.

1.8 Future and Design-Specific Commitments

Regulatory guides, generic communications, codes, standards, and industry documents not expressly identified in this Part are not generic QAPD commitments. Apollo Atomics evaluates and adopts additional design-specific or operating-phase commitments through the applicable licensing and document-control processes as the design and licensing basis mature.

Before each NRC license or permit application is submitted, Regulatory Affairs/Licensing coordinates a documented review of the regulatory guides, standard review plan criteria, codes, standards, and other regulatory guidance applicable to the QAPD and in effect for the governing application review period. The review identifies conformance, exceptions, alternatives, justifications, affected licensing sections, and any QAPD changes required to maintain an accurate statement of Apollo Atomics commitments. Engineering and Quality Assurance review the technical and programmatic determinations, respectively, and responsible management approves the resulting commitments in accordance with controlled licensing and document-change processes.

QAPD changes receive technical, Quality Assurance, licensing, and management review. While Apollo Atomics is a nonlicensee, changes to an NRC-accepted QAP topical report are submitted under 10 CFR 50.4(b)(7)(ii). Once Apollo Atomics is a licensee subject to 10 CFR 50.54(a), changes are controlled under that section and submitted under 10 CFR 50.4(b)(7)(i), as applicable. NRC approval precedes implementation of a reduction in accepted commitments.