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### **REVISION SUMMARY**

Rev No.	Description of Revision	Date			
15	Each section was revised to provide clarity and meet requirements of NQA-1 2015. Other information but not limited to management review, indoctrination and training, and contract review was included.	05/17/2022			
14	Complete rewrite to be incompliance with NQA-1 1994 and NQA-1 2008/09a	02/06/2012			
Previous Revisions on File					



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Sonic Systems provides quality products and services to its customers through

Trust

Reliability

Responsibility

Flexibility

and

Commitment

The quality assurance program described meets the requirements of 10CFR50 Appendix B and 10CFR21 using NQA-1 and ANSI N45.2 and daughter standards.

Bruce Schlueter, President & CEO

## SONIC SYSTEMS

## **QUALITY ASSURANCE MANUAL**

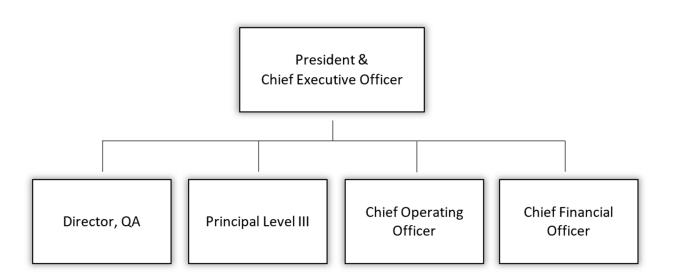
#### 1. ORGANIZATION

- 1.1 President and CEO
  - 1.1.1. Establishes overall expectations for implementation of the Quality Assurance Program.
  - 1.1.2. Responsible for obtaining the desired end-result.
  - 1.1.3. Considered the "Responsible Officer" who is vested with executive authority over activities subject to 10CFR21.
- 1.2 Director, Quality Assurance
  - 1.2.1. Responsible for the development and effective implementation of the Quality Assurance Program and all related activities.
  - 1.2.2. Reports directly to the President and shall have open lines of communication to all other departments.
  - 1.2.3. The Director, Quality makes an initial judgment to determine if a significant deviation or noncompliance meets the requirement for reportability under 10CFR21.
- 1.3 Principal NDE Level III
  - 1.3.1. Responsible for the qualification and certification of personnel and the development of nondestructive examination procedures.
- 1.4 Individuals performing verification activities possess
  - 1.4.1. Sufficient authority
  - 1.4.2. Direct access to responsible levels of management
  - 1.4.3. Organizational freedom and access to work to perform this function, including sufficient independence
  - 1.4.4. Identifying quality problems
  - 1.4.5. Initiating, recommending, or providing solutions to quality problems through designated channels
  - 1.4.6. Verifying implementation of solutions
  - 1.4.7. Assuring that further processing, delivery, installation, or use is controlled until proper disposition of a nonconformance, deficiency, or unsatisfactory condition has occurred.
- 1.5 Individuals responsible for activities affecting quality may delegate the work to others but retains responsibility for those activities.
- 1.6 Interface Control

Where more than one organization is involved in the execution of activities, the responsibilities, interfaces, and authority of each organization is clearly defined and documented. The external interfaces between organizations and the internal interfaces between organizational units, and changes thereto, are documented.



#### **ORGANIZATION CHART**



#### 2. QUALITY ASSURANCE PROGRAM

- 2.1 The Sonic QA program addresses the applicable 10CFR 50 Appendix B criteria as it applies to the items and services provided. The program utilizes NQA-1 and ANSI N45.2 and applicable daughter standards as the implementing guidance documents. See Section 19 for reference information.
- 2.2 Under the Sonic's scope of supply, an item is defined as highly skilled qualified personnel. Certain skillsets require certification which are addressed in specific procedural guidance.
- 2.3 Procedures, work instructions and forms are in place to implement the applicable quality program requirements.
- 2.4 All Sonic employees are indoctrinated and trained in accordance with the scope, complexity, importance of the activities, and their education, experience and current proficiency.
- 2.5 All Sonic employees performing or managing activities affecting quality are indoctrinated in their responsibilities and authority which includes general criteria, technical objectives, requirements of applicable codes and standards, company procedures and QA program requirements.
- 2.6 Specific procedures are in place for the qualification and certification of Nondestructive Examination (NDE), Quality Control (QC) inspection and Quality Assurance Audit (QA) personnel.
- 2.7 Sonic management reviews and assesses the adequacy and effective implementation of the QA Program annually. Activities to be reviewed include but are not limited to the following:
  - 2.7.1. Self-Identified Corrective Action Reports
  - 2.7.2. Customer Identified Corrective Action Reports
  - 2.7.3. Internal Audits
  - 2.7.4. Personnel Certifications Feedback

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#### 3. DESIGN CONTROL

- 3.1 Sonic does not perform design activities as described in 10CFR50 Appendix B Criterion III. If necessary, any design will be controlled by the client's quality assurance program.
- 3.2 Customer quality and technical requirements will be reviewed and incorporated into Sonic work products.

#### 4. PROCUREMENT DOCUMENT CONTROL

- 4.1 For safety-related purchases, the following requirements are addressed in procurement documents to Sonic suppliers according to the scope of supply.
  - 4.1.1. Scope of work
  - 4.1.2. Applicable technical requirements
  - 4.1.3. Applicable quality assurance requirements
  - 4.1.4. Rights of access to the supplier and sub-tier supplier facilities and records for source inspection, surveillance and audit.
  - 4.1.5. Records to be prepared, maintained, submitted, or made available for review. This may include instruction on record retention, disposition, and 10CFR21 if applicable.
  - 4.1.6. Reporting requirements for nonconformances and conditions adverse to quality.
- 4.2 All procurement documents are reviewed and approved prior to issuance, including revisions and/or amendments.
- 4.3 Procurement documents shall identify the safety classifications of services or items for purchase. Safety-related purchases under the supplier's QA program are restricted to those companies identified on the Sonic Approved Suppliers List.

#### 5. INSTRUCTIONS, PROCEDURES, AND DRAWINGS

- 5.1 All activities affecting quality have implementing procedures or work instructions in place to ensure compliance to the regulations and implementing industry guidance documents.
- 5.2 Instructions and procedures include quantitative and/or qualitative acceptance criteria to determine activities have been satisfactorily accomplished.

#### 6. DOCUMENT CONTROL

- 6.1 The preparation, issuance, and changes of documents that specify quality requirements or prescribe activities affecting quality are controlled to ensure that correct documents are being used. Such documents, including changes thereto, are reviewed for adequacy and approved for release by authorized personnel.
- 6.2 All documents utilized for activities affecting quality are uniquely identified and available to employees at appropriate location.
- 6.3 Controls are in place to identify the individuals or functions responsible for preparing, reviewing, approving, and distributing controlled documents.
- 6.4 Sonic does not distinguish between major and minor changes but does have controls in place for interim changes which are reviewed for adequacy and approved for release similar to full revisions.



#### 7. CONTROL OF PURCHASED ITEMS AND SERVICES

- 7.1 Controls are in place to ensure conformance with specified requirements for purchased items, and services.
- 7.2 In addition, controls are in place for supplier evaluation and selection and methods of acceptance.
- 7.3 Controls are in place for submittal and evaluation of any supplier-generated documents in accordance with the procurement document requirements.
- 7.4 Supplier nonconformances and/or conditions adverse to quality are controlled.

#### 8. IDENTIFICATION AND CONTROL OF ITEMS

Sonic maintains unique identification either directly on an item or through documentation traceable to the item.

#### 9. CONTROL OF SPECIAL PROCESSES

- 9.1 The special processes performed by Sonic are controlled and accomplished by qualified personnel using procedures that comply with applicable codes, standards, specs, criteria, and other special requirements.
- 9.2 The certification process for NDE personnel is documented and maintained, meeting the applicable references as deemed by our customers.

#### 10. INSPECTION

- 10.1 Current inspection activities at Sonic include receipt inspection-type activities. If other inspections are requested by a customer, additional controls will be put in place to govern those specific activities.
- 10.2 Inspections are performed with personnel who are independent from those who originally performed the activity being inspected. There is a documented certification process in place for inspection personnel.
- 10.3 Inspection procedures, instructions, and checklists are in place to control inspection activities.
- 10.4 Inspection results will be documented, evaluated, and their acceptability determined by qualified personnel.

#### 11. TEST CONTROL

Sonic does not perform testing activities described in 10CFR50 Appendix B Criterion XI. If necessary, controls will be developed at a procedural level to document the controls for testing activities and resultant documentation.

#### 12. CONTROL OF MEASURING AND TEST EQUIPMENT

12.1 Any M&TE utilized for safety-related work is controlled with a unique identifier, calibrated at prescribed intervals, with documentation maintained to support the adequacy of the M&TE.

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## **QUALITY ASSURANCE MANUAL**

- 12.2 M&TE is traceable to its application and use.
- 12.3 It is unnecessary to maintain the calibration of equipment being stored at Sonic facilities and that is not being utilized for safety-related work.
- 12.4 Calibration may be performed by approved suppliers or in-house.
- 12.5 The calibration status is verified prior to use.
- 12.6 If M&TE is found to be out-of-tolerance during calibration activities, corrective action will be taken to address any use previous measurement or inspection activities to ensure acceptability.

#### 13. HANDLING, SHIPPING, AND STORAGE

- 13.1 When specified by a customer, controls will be established to implement the following requirements:
  - 13.1.1. Establish special handling, preservation, storage, cleaning, packaging, and shipping of safety-related equipment that will be installed in a licensed facility.
  - 13.1.2. Accomplish handling, storage, and shipping with qualified individuals in accordance with predetermined work and inspection instructions. Control cleaning, handling, storage, packaging, shipment, and preservation of items in accordance with specification requirements to preclude damage, loss or deterioration as a result of environmental conditions, such as temperature or humidity.
  - 13.1.3. Specify drawings and contract requirements for special handling, preservation, cleaning, packaging, shipping, and storage.
  - 13.1.4. Implement handling and storage requirements when that responsibility is assumed on a site.

#### 14. INSPECTION, TEST, AND OPERATING STATUS

- 14.1 An item's status is identified either on the item or in documentation traceable to the item.
- 14.2 Measures are established to assure that items that have not passed the required inspections are not inadvertently installed, used, or operated.
- 14.3 Status is maintained through indicators such as certification package documentation, inspection records, or other suitable means.
- 14.4 The authority for applying and removing status indicators is specified in procedural guidance.

#### 15. CONTROL OF NONCONFORMING ITEMS

- 15.1 Although Sonic does not typically provide components, parts or material to its customers, controls are in place for segregation until disposition has occurred.
- 15.2 Notification to affected departments and customers is documented.
- 15.3 Corrective actions are documented if it is determined that generic implications may exist.
- 15.4 While evaluating nonconforming items, consideration is given to 10CFR21 reporting responsibilities.



#### 16. CORRECTIVE ACTION

- 16.1 All Sonic employees are responsible for reporting conditions adverse to quality, such as but not limited to:
  - 16.1.1. Failure to follow procedures or quality program requirements.
  - 16.1.2. Lack of procedures or quality requirements.
  - 16.1.3. Improperly certified personnel.
- 16.2 Controls are in place to ensure the condition adverse to quality is corrected, causal analysis is performed, and appropriate actions are taken to prevent recurrence.
- 16.3 Verification of completion of corrective actions are performed to ensure adequacy.
- 16.4 While evaluating conditions adverse to quality, consideration is given to 10CFR21 reporting responsibilities.

#### 17. QUALITY ASSURANCE RECORDS

- 17.1 Sonic quality records provide evidence that the product provided has met specified quality and technical requirements.
- 17.2 Records are uniquely identified, generated appropriately, authenticated, and maintained according to a record retention schedule.
- 17.3 Records generated, supplied, and/or maintained are specified in applicable procedural guidance associated with the work.

#### 18. AUDITS

- 18.1 Audits at Sonic are conducted to verify compliance to quality assurance requirements, to verify performance criteria are met, and to determine effectiveness of the program.
- 18.2 Audits are performed in accordance with written procedures or checklists by personnel who do not have direct responsibility for performing the activities being audited.
- 18.3 Audit results are documented and reported to and reviewed by responsible management.
- 18.4 Follow-up actions are taken where indicated.

#### 19. REFERENCES

- 19.1 USNRC Regulatory Guide (RG) 1.28, Quality Assurance Program Criteria (Design and Construction), Revision 5 dated October 2017.
- 19.2 American Society of Mechanical Engineer's NQA-1, Quality Assurance for Nuclear Facility Applications Up to and including the 2015 edition.
- 19.3 ANSI N45.2, Quality Assurance Program Requirements for Nuclear Facilities, 1977 Edition