Date Distributed:



NATIONAL BOARD INSPECTION CODE NR TASK GROUP

AGENDA

Meeting of January 13, 2025 Charleston, SC

The National Board of Boiler & Pressure Vessel Inspectors 1055 Crupper Avenue Columbus, Ohio 43229-1183 Phone: (614)888-8320

Phone: (614)888-8320 FAX: (614)847-1828

1. Call to Order

The Chair will call the meeting to order at 8:00 a.m. Eastern Time. For those attending in person, the meeting will be held in Palmetto & Carolina Room on the second floor of the hotel.

2. Introduction of Members and Visitors.

3. Check for a Quorum

4. Announcements

- This meeting marks the end of Cycle A for the 2027 NBIC edition.
- The National Board will be hosting a reception on Wednesday evening from 5:30 p.m. to 7:30 p.m. at the Hyatt Place rooftop bar, the Pour Taproom.
- The National Board will be hosting breakfast and lunch on Thursday for those attending the Main Committee meeting. Breakfast will be served from 7:00 a.m. to 8:00 a.m. in Grand Magnolia Foyer, and lunch will be served from 11:30 a.m. to 12:30 p.m. in Sterling Hall Foyer.
- Meeting schedules, meeting room layouts, and other helpful information can be found on the National Board website under the **NBIC** tab → NBIC Meeting Information.
- The NBIC Committee has transitioned from NB File Share to SharePoint. Remember to add any attachments that you'd like to show during the meeting (proposals, reference documents, powerpoints, etc.) to the NBIC SharePoint site (nationalboard.sharepoint.com/sites/NBIC) **prior to the meeting**.
 - o Note that access to the NBIC SharePoint site is limited to committee members only.
 - ALL powerpoint attachments/presentations <u>must be sent to the NBIC Secretary for approval prior</u> to the meeting.
 - o Contact Jonathan Ellis (*nbicsecretary@nbbi.org*) for any questions regarding NBIC SharePoint access.
- When possible, please submit proposals in Word format showing "strike through/underline." Project Managers: please ensure any proposals containing text from previous NBIC editions are updated with text from the most current edition.
- If you'd like to request a new Interpretation or Action item, do so on the National Board Business Center.
 - o Anyone, member or not, can request a new item.
- As a reminder, anyone who would like to become a member of a group or committee:
 - Should attend at least two meetings prior to being put on the agenda for membership consideration. The nominee will be on the agenda for voting during their third meeting.
 - The nominee must submit the formal request along with their resume to the NBIC Secretary **PRIOR TO** the meeting. *nbicsecretary@nbbi.org*
 - o If needed, we can also create a ballot for voting on a new member between meetings.
- Thank you to everyone who registered online for this meeting. The online registration is very helpful for planning our reception, meals, room setup, etc. It is also a good way to make sure we have the most up-to-date contact information. Please continue to use the online registration for each meeting.

5. Adoption of the Agenda

6. Approval of the Minutes of the July 15, 2024, Meeting

The minutes are available for review on the National Board website, <u>www.nationalboard.org</u>.

7. Review of Rosters (Attachment Page 1)

- a. Membership Nominations
- b. Membership Reappointments
- c. Officer Nominations

8. Interpretations

There are currently no open interpretation items for the NR Task Group to address.

9. Action Items

Item Number: A23-60 NBIC Location: Part 3, 1.6 Attachment Page 2

General Description: Endorsements required for Nuclear Inspectors based on Category of work

Subgroup: NR TG

Task Group: C. Dinic (PM)

Explanation of Need: Endorsements required for Nuclear Inspectors based on Category of work (1, 2,

or 3)

July 2024 Meeting Action:

This proposal is under review by the CQI, as this impacts RCI-1. Meetings will be scheduled with NBBI, Canadian jurisdictions, and NR TG members (e.g. Tom Roberts) to clarify what is needed. This was a PR.

Item Number: A24-09 NBIC Location: Part 3, 1.6.1 – 1.6.5 No Attachment

General Description: Update and revise NR Scope in 1.6.1 - 1.6.5

Subgroup: NR TG

Task Group: R. Spuhl (PM)

Explanation of Need: Scope and update and revision to 1.6.1 - 1.6.5.

July 2024 Meeting Action:

R. Spuhl presented a PR. Other changes have impacted this item.

New Items:

Item Number: A24-83 NBIC Location: Part 3, 1.6.4 d) Attachment Page 101

General Description: Change Part 3, 1.6.4 d) (or elsewhere) to require audits to be performed by

Supervisor

Subgroup: NR TG

Task Group: None assigned.

Explanation of Need: Requiring audits to be performed by a supervisor.

January 2025 Meeting Action:

Item Number: A24-92 NBIC Location: Part 3, 1.3 Attachment Page 102

General Description: NR Inspector and Agency Qualification Reqs in 1.3 - TIED TO A23-60

Subgroup: NR TG

Task Group: R. Spuhl (PM)

Explanation of Need: The NR Program is being revised per A23-60, and this addition will clarify Inspector/Supervisor and Agency requirements for NR activities.

January 2025 Meeting Action:

Item Number: A24-95 NBIC Location: Part 3, 5.5 a) Attachment Page 104

General Description: Registration of NR Forms within 30 Days

Subgroup: Repairs and Alterations

Task Group: R. Spuhl (PM)

Explanation of Need: 5.5 a) states repairs and alterations requiring registration must be submitted within 30 days of certification. It is unclear if this requirement applies to repair/replacement activities under the "NR" or "NVR" programs.

January 2025 Meeting Action:

10. Additional Business

11. Future Meetings

- July 7-10, 2025 Cincinnati, OH
- January 12-15, 2026 New Orleans, LA

12. Adjournment

Respectfully submitted,

Terrence Hellman

Terrence Hellman

NR Task Group Secretary

■ Task Group NR

Last Name	First Name	Interest Category	Role	Exp. Date	More
Spuhl	Raymond	Authorized Inspection Agencies	Chair	08/22/2026	Details
Hellman	Terrence		Secretary	12/31/2099	Details
Bates	Johnathon	Labor	Member	01/31/2027	Details
Creaser	Eben	Jurisdictional Authorities	Member	07/31/2025	Details
Dinic	Caslav	Jurisdictional Authorities	Member	07/31/2025	Details
Khssassi	Aziz	Jurisdictional Authorities	Member	08/19/2027	Details
Roberts	Tom	General Interest	Member	01/31/2026	Details
Schaefer	Benjamin	National Board Certificate Holders	Member	01/31/2026	Details
Sperko	Walter	General Interest	Member	01/31/2027	Details
Toth	Bryan	General Interest	Member	01/31/2026	Details
White	Thomas	General Interest	Member	08/31/2026	Details

CHANGES TO BE ADDED BASED ON 9/25/24 Meeting:

- Change Authorized Nuclear Inspector to Inspector through out 1.6
- Remove Inspector endorsement requirements from 1.6.6.2 t), 1.6.7.2 t), 1.6.8.2 t).
- Remove statement regarding signing NR-1 without satisfied all work iaw NRIC
- S9.6 and S9.7 change to Inspector.
- MOVE ALL OF 1.6 TO NEW SUPPLEMENT

Existing text – NBIC Part 3 – 2023

1.6.2.1 DEFINITIONS

The NBIC terms and definitions shall be supplemented, as applicable, by the terms and definitions of ASME Section III, Section XI Division I, NQA-1, or other standards specified by the Regulatory Authority.

The following terms are as defined in the NBIC Glossary of Terms Section 9:

- a) Authorized Inspection Agency
- b) Authorized Nuclear Inspection Agency
- c) Jurisdiction
- d) "NR" Certificate Holder

1.6.3 PREREQUISITES FOR ISSUING A NATIONAL BOARD "NR" CERTIFICATE OF AUTHORIZATION

Before an organization can obtain a National Board "NR" Certificate of Authorization, the organization shall:

- a) Have and maintain an inspection agreement with an Authorized Nuclear Inspection Agency accepted in accordance with NB-360, National Board Acceptance of Authorized Inspection Agencies (AIA) Accredited by the American Society of Mechanical Engineers (ASME), with accreditation to perform repair and alteration acceptance inspections.
- b) Have a written Quality Assurance Program which includes the quality assurance manual and any supporting procedures, instructions and specifications required to comply with this section. The Quality Assurance Program shall address all controls for the intended category and scope of activities requested.

New proposed text

1.6.2.1 **DEFINITIONS**

The NBIC terms and definitions shall be supplemented, as applicable, by the terms and definitions of ASME Section III, Section XI Division I, NQA-1, or other standards specified by the Regulatory Authority.

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1.6.3 PREREQUISITES FOR ISSUING A NATIONAL BOARD "NR" CERTIFICATE OF AUTHORIZATION

Before an organization can obtain a National Board "NR" Certificate of Authorization, the organization shall:

- a) Have and maintain an inspection agreement with an Authorized Nuclear Inspection Agency meeting requirements identified in NBIC Part 3, 1.6.5.4 accepted in accordance with NB-360, National Board Acceptance of Authorized Inspection Agencies (AIA) Accredited by the American Society of Mechanical Engineers (ASME), with accreditation to perform repair and alteration acceptance inspections.
- b) Have a written Quality Assurance Program which includes the quality assurance manual and any supporting procedures, instructions and specifications required to comply with this section. The Quality Assurance Program shall address all

- c) Have a current edition of the NBIC.
- d) Have available ASME Section XI Division I, the code of construction and referenced code sections and standards appropriate for the scope of work to be performed. ASME Section XI Division I and codes of construction (Editions/Addenda) shall meet the requirements of the Regulatory Authority and the owner.
- controls for the intended category and scope of activities requested.
- c) Have a current edition of the NBIC.
- d) Have available ASME Section XI Division I, the code of construction and referenced code sections and standards appropriate for the scope of work to be performed. ASME Section XI Division I and codes of construction (Editions/Addenda) shall meet the requirements of the Regulatory Authority and the owner.

1.6.4 OBTAINING OR RENEWING A NATIONAL BOARD "NR" CERTIFICATE OF AUTHORIZATION

a) Before an "NR" Certificate of Authorization will be issued or renewed, the applicant must have the Quality Assurance Program and the implementation of the program reviewed and found acceptable by representatives of the National Board, the Jurisdiction, and the Authorized Nuclear Inspection Agency. The Jurisdiction will be the National Board Member Jurisdiction in which the applicant is located or the location where the Quality Assurance Program is demonstrated/implemented. At the request of the Jurisdiction, or where there is no National Board Member Jurisdiction, the National Board representative shall act on behalf of the Jurisdiction. The implementation of the Quality Assurance Program shall be satisfactorily demonstrated by the organization. Demonstration of implementation shall meet the most stringent (classification) code requirements for the scope and category of work to be specified on the Certificate of Authorization or as requested by the applicant.

- b) If the applicant is an ASME "N" type Certificate of Authorization holder, has satisfactorily demonstrated within the last twelve (12) months the implementation of their Quality Assurance Program and can provide documentation that the organization is capable of implementing its Quality Assurance Program as being in compliance with this section, a further hardware verification implementation may not be necessary.
- c) The Regulatory Authority or Jurisdiction, upon request to the National Board, may attend the survey process for an "NR" Certificate of Authorization to be issued or renewed.
- d) The "NR" Certificate of Authorization holder shall be subject to an audit annually by the Authorized Nuclear Inspection Agency to ensure compliance with the Quality Assurance Program.

1.6.4 OBTAINING OR RENEWING A NATIONAL BOARD "NR" CERTIFICATE OF AUTHORIZATION

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- b) If the applicant is an ASME "N" type Certificate of Authorization holder, has satisfactorily demonstrated within the last twelve (12) months the implementation of their Quality Assurance Program and can provide documentation that the organization is capable of implementing its Quality Assurance Program as being in compliance with this section, a further hardware verification implementation may not be necessary.
- c) The Regulatory Authority or Jurisdiction, upon request to the National Board, may attend the survey process for an "NR" Certificate of Authorization to be issued or renewed.
- d) The "NR" Certificate of Authorization holder shall be subject to an audit annually by the Authorized Nuclear Inspection Agency to ensure compliance with the Quality Assurance Program.

Note to editor:

Insert new 1.6.5, 1.6.5.1, 1.6.5.2, 1.6.5.3 and 1.6.5.4. Renumber existing 1.6.5 to 1.6.9

1.6.5 INSPECTOR

- a) Inspection and certification shall be made by an Inspector holding a valid National Board commission with the "R" endorsement issued by the National Board.
- b) The Inspector shall additionally:
 - For Category 1, Hold a "N" endorsement and be employed by an Authorized Inspection Agency in accordance with NB-263, Rules for Commissioned Inspectors (RCI-1) (see NBIC Part 3, Section 9, Glossary of Terms for definition of Authorized Inspection Agency) or be employed or appointed or accepted by the Regulatory Authority in the country or region having jurisdiction over the designated plant.
 - 2) For Category 2, Hold a "I" endorsement and be employed by an Authorized Inspection Agency in accordance with NB-263, Rules for Commissioned Inspectors (RCI-1) (see NBIC Part 3, Section 9, Glossary of Terms for definition of Authorized Inspection Agency) or be employed or appointed or accepted by the Regulatory Authority in the country or region having jurisdiction over the designated plant.
 - 3) For Category 3, Hold qualifications required by the Regulatory Authority and be employed by an Authorized Inspection Agency in accordance with NB-263, Rules for Commissioned Inspectors (RCI-1) or be employed or appointed or accepted by the Regulatory Authority in the country or region having jurisdiction over the designated plant. In case that When the Regulatory Authority does not specify Inspector qualifications, NBIC Part 3, 1.6.5 a) and b)2) shall apply.

Existing text –	NBIC	Part	3 –	2023
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New proposed text

1.6.5.1 SUPERVISOR

- a) Supervisors of Inspectors shall hold a qualifications for Inspector as required in NBIC Part 3, 1.6.5.
- b) The Supervisor shall additionally:
- For Category 1 Hold a "NS" endorsement and be employed by an Authorized Inspection Agency in accordance with NB-263, Rules for Commissioned Inspectors (RCI-1) or/and be employed or appointed or accepted by theRegulatory Authority in the country or region having jurisdiction over the designated plant.
- 2) For Category 2 Hold a "NSI" endorsement and be employed by an Authorized Inspection Agency in accordance with NB-263, Rules for Commissioned Inspectors (RCI-1) or/and be employed or appointed or accepted by the Regulatory Authority in the country or region having jurisdiction over the designated plant. 3) For Category 3 - Hold qualifications required by the Regulatory Authority and be employed by an Authorized Inspection Agency in accordance with NB-263, Rules for Commissioned Inspectors (RCI-1) or be employed or appointed or accepted by the Regulatory Authority in the country or region having jurisdiction over the designated plant. In case that When the Regulatory **Authority does not specify Supervisor** qualifications, NBIC Part 3, 1.6.5.1a) and b)2) shall apply.

Existing text – NBIC Part 3 – 2023	New proposed text
	1.6.5.2 AUTHORIZATION
	The Inspector's authorization to perform a repair or alteration shall be obtained by the "NR"
	Certificate Holder prior to initiation of a repair or
	alteration to a pressure-retaining item. The
	Inspector shall determine that the repair or
	alteration methods are acceptable.

Existing text – NBIC Part 3 – 2023	New proposed text
	1.6.5.3 INSPECTIONS AND CERTIFICATIONS
	a) Inspections and certification of NBIC FORM
	NR-1, REPORT OF REPAIR/REPLACEMENT
	ACTIVITIES FOR NUCLEAR FACILITIES shall be
	performed by the same Inspector who
	authorized the repair or alteration activity.
	Where this is not possible or practicable,
	another Inspector may perform these duties;
	however, in all cases, duties associated within
	the same scope of work shall be performed by
	Inspectors employed by the same Authorized
	Inspection Agency.
	b) Before signing the NBIC FORM NR-1, REPORT
	OF REPAIR/REPLACEMENT ACTIVITIES FOR
	NUCLEAR FACILITIES, the Inspector shall verify all
	applicable Inspector duties have been
	performed as required in NB-263, RCI-1.

Existing text – NBIC Part 3 – 2023	New proposed text		
	1.6.5.4 Authorized Inspection Agency		
	Inspector performing inspection for "NR"		
	Certificate Holder and Supervisor shall be employed by the Authorized Inspection Agency (see NBIC Part 3, Section 9, Glossary of Terms for definition of Authorized Inspection Agency). The Authorized Inspection Agency additionally shall be either a) meeting the qualification and duties of NB-360, National Board Acceptance of		
	Authorized Inspection Agencies (AIA)		
	Accredited by the American Society of		
	Mechanical Engineers (ASME) and		
	intending to perform nuclear inspection		
	activities and employing Authorized		
	Nuclear Inspectors / Supervisors. The		
	Certificate of Accreditation from ASME		
	must include the performance of		
	inspection activities covering:		
	1) For Category 1 - Section III		
	2) For Category 2 - Section III and		
	XI Division 1		
	b) Alternately to requirements 1.6.5.4 a) the		
	Authorized Inspection Agency may be the Regulatory Authority or be appointed or		
	accepted by the Regulatory Authority in the country or region having jurisdiction over the		
	designated plant.		

1.6.5 QUALITY ASSURANCE PROGRAM

- a) An applicant or a holder of a National Board "NR" *Certificate of Authorization* ("NR" Certificate Holder) shall have and maintain a written Quality Assurance Program. The Quality Assurance Program shall satisfactorily meet the requirements of this section, and Jurisdictional and Regulatory requirements as applicable. The Quality Assurance Program may be brief or voluminous, depending on the circumstances. It shall be treated confidentially by the National Board and available for review by the Survey Team.
- b) Each applicant or "NR" Certificate Holder is responsible for establishing and executing a Quality Assurance Program. The applicant or "NR" Certificate Holder may subcontract activities needed to implement the Quality Assurance Program, as limited by ASME Section III and XI Division I, but responsibility for adherence to the Quality Assurance Program remains with the Applicant or "NR" Certificate Holder.
- c) These rules set forth the requirements for planning, managing, and implementing the organization's Quality Assurance Program to control and ensure quality is performed and maintained during repair/replacement activities of components, items, parts, and systems for nuclear facilities. These rules are to be the basis for evaluating such programs prior to the issuance or renewal of the National Board "NR" Certificate of Authorization. Rules identified in subsections 1.6.6, 1.6.7 and 1.6.8 of this section detail the Quality Assurance Program requirements for each category of activity. These rules are established to meet and follow the requirements specified in NBIC Part 3, Table 1.6.2 of this section.

1.6.56 QUALITY ASSURANCE PROGRAM

- a) An applicant or a holder of a National Board "NR" *Certificate of Authorization* ("NR" Certificate Holder) shall have and maintain a written Quality Assurance Program. The Quality Assurance Program shall satisfactorily meet the requirements of this section, and Jurisdictional and Regulatory requirements as applicable. The Quality Assurance Program may be brief or voluminous, depending on the circumstances. It shall be treated confidentially by the National Board and available for review by the Survey Team.
- b) Each applicant or "NR" Certificate Holder is responsible for establishing and executing a Quality Assurance Program. The applicant or "NR" Certificate Holder may subcontract activities needed to implement the Quality Assurance Program, as limited by ASME Section III and XI Division I, but responsibility for adherence to the Quality Assurance Program remains with the Applicant or "NR" Certificate Holder.
- c) These rules set forth the requirements for planning, managing, and implementing the organization's Quality Assurance Program to control and ensure quality is performed and maintained during repair/replacement activities of components, items, parts, and systems for nuclear facilities. These rules are to be the basis for evaluating such programs prior to the issuance or renewal of the National Board "NR" Certificate of Authorization. Rules identified in subsections 1.6.67, 1.6.78 and 1.6.89 of this section detail the Quality Assurance Program requirements for each category of activity. These rules are established to meet and follow the requirements specified in NBIC Part 3, Table 1.6.2 of this section.

1.6.6 QUALITY ASSURANCE PROGRAM REQUIREMENTS FOR CATEGORY 1 ACTIVITIES

1.6.6.1 SCOPE

Owners or organizations other than owners shall have a written Quality Assurance Program meeting the criteria specified in NBIC Part 3, Table 1.6.2 for Category 1 activities. The following quality elements shall be specified and described within the QAM.

1.6.67 QUALITY ASSURANCE PROGRAM REQUIREMENTS FOR CATEGORY 1 ACTIVITIES

1.6.67.1 SCOPE

Owners or organizations other than owners shall have a written Quality Assurance Program meeting the criteria specified in NBIC Part 3, Table 1.6.2 for Category 1 activities. The following quality elements shall be specified and described within the QAM.

a) Organization

The provisions identified in ASME NQA-1, Part 1, Requirement 1, shall apply in its entirety. The authority and responsibility for individuals involved in activities affecting quality shall be clearly established and documented throughout the Quality Assurance Program and identified on a functional organizational chart contained within the QA Manual.

1.6.67.2 QUALITY PROGRAM ELEMENTS

a) Organization

The provisions identified in ASME NQA-1, Part 1, Requirement 1, shall apply in its entirety. The authority and responsibility for individuals involved in activities affecting quality shall be clearly established and documented throughout the Quality Assurance Program and identified on a functional organizational chart contained within the QA Manual.

- b) Statement of Policy and Authority shall:
- 1) identify the titles of individuals who have the authority and responsibility charged with ensuring the quality program is implemented as described;
- 2) confirm their freedom in the organization to identify quality problems and to initiate, recommend and provide solutions;
- 3) include a statement that if there is a disagreement in the implementation of the quality assurance program, the matter is to be referred for resolution to a higher authority and shall be resolved in a manner that will not conflict with code, jurisdiction/regulatory authority or quality program requirements;
- 4) include a statement of the full support of management; and
- 5) be dated and signed by a senior management official within the organization.

1.6.-67.2 QUALITY PROGRAM ELEMENTS

- b) Statement of Policy and Authority shall:
- 1) identify the titles of individuals who have the authority and responsibility charged with ensuring the quality program is implemented as described:
- 2) confirm their freedom in the organization to identify quality problems and to initiate, recommend and provide solutions;
- 3) include a statement that if there is a disagreement in the implementation of the quality assurance program, the matter is to be referred for resolution to a higher authority and shall be resolved in a manner that will not conflict with code, jurisdiction/regulatory authority or quality program requirements;
- 4) include a statement of the full support of management; and
- 5) be dated and signed by a senior management official within the organization.

- c) Quality Assurance Program (QAP)
 The provisions identified in ASME NQA-1, Part 1,
 Requirement 2, shall apply, except paragraph 301.
 Additionally, the following criteria shall be used
 when developing and maintaining the QAP.
- 1) The Quality Assurance Program as used in this section shall include a written Quality Assurance Manual, with supporting procedures and instructions used to meet all the requirements of this Section.
- 2) Qualification of non-destructive examination personnel shall be as required by the code of construction or as specified in the owner's Quality Assurance Program.
- 3) The "NR" Certificate Holder shall be responsible for advising the Authorized Nuclear Inspection Agency of proposed changes to the Quality Assurance Manual to obtain acceptance of the Authorized Nuclear Inspector Supervisor before putting such changes into effect. The "NR" Certificate Holder shall make a current controlled copy of the Quality Assurance Manual available to the Authorized Nuclear Inspector and Authorized Nuclear Inspector Supervisor. The Certificate Holder shall be responsible for notifying the Authorized Nuclear Inspector of QAM changes, including evidence of acceptance by the Authorized Nuclear Inspector Supervisor.

 4) The Quality Assurance Manual need not be in
- the same format or sequential arrangement as the requirements in these rules as long as all applicable requirements have been covered.

 5) The "NR" Certificate Holder shall implement and maintain a program for qualification, indoctrination, training and maintaining proficiency of personnel involved with quality functions, including personnel of subcontracted
- 6) The "NR" Certificate Holder shall address in their QAM the requirements for interfacing with the owner specified in NBIC Part 3, 1.6.9.

services.

7) Specified controls including responsibilities for personnel shall be described in the quality assurance program.

1.6.—67.2 QUALITY PROGRAM ELEMENTS

- c) Quality Assurance Program (QAP)
 The provisions identified in ASME NQA-1, Part 1,
 Requirement 2, shall apply, except paragraph 301.
 Additionally, the following criteria shall be used
 when developing and maintaining the QAP.
- 1) The Quality Assurance Program as used in this section shall include a written Quality Assurance Manual, with supporting procedures and instructions used to meet all the requirements of this Section.
- 2) Qualification of non-destructive examination personnel shall be as required by the code of construction or as specified in the owner's Quality Assurance Program.
- 3) The "NR" Certificate Holder shall be responsible for advising the Authorized Nuclear Inspection Agency of proposed changes to the Quality Assurance Manual to obtain acceptance of the Authorized Nuclear Inspector Supervisor before putting such changes into effect. The "NR" Certificate Holder shall make a current controlled copy of the Quality Assurance Manual available to the Authorized Nuclear Inspector and Authorized Nuclear Inspector and Authorized Holder shall be responsible for notifying the Authorized Nuclear Inspector of QAM changes, including evidence of acceptance by the Authorized Nuclear Inspector Supervisor.
- the same format or sequential arrangement as the requirements in these rules as long as all applicable requirements have been covered. 5) The "NR" Certificate Holder shall implement and maintain a program for qualification, indoctrination, training and maintaining proficiency of personnel involved with quality functions, including personnel of subcontracted services.

4) The Quality Assurance Manual need not be in

- 6) The "NR" Certificate Holder shall address in their QAM the requirements for interfacing with the owner specified in NBIC Part 3, 1.6.910.
- 7) Specified controls including responsibilities for personnel shall be described in the quality assurance program.

d) Design Control

The provisions identified in ASME NQA-1, Part 1, Requirement 3, shall apply except Paragraph 601. The following additional requirements shall be considered when applicable:

- 1) The "NR" Certificate Holder shall establish measures to ensure applicable requirements of the owner's design specifications, owner's requirements, and code of construction requirements are correctly translated into drawings, specifications, procedures and instructions.
- 2) All design documents, including revisions, shall be verified by the "NR" Certificate Holder to be correct and adequate in accordance with the owners requirements.
- 3) Repair/replacement plans shall be completed prior to performing any work, inspections, examinations or testing; however repair/replacement plans are not required for the design phase of a repair/replacement activity including activities that require design only (except rerating).
- 4) The repair/replacement plan (see NBIC Part 3, Table 1.6.9) shall identify any applicable Code Edition/Addenda and Code Cases, owner's requirements and the Construction Code Edition/Addenda utilized to perform the work.
 5) The repair/replacement plan shall identify expected life of the item when less than the intended life as specified in the owner's design specification.
- 6) The "NR" Certificate Holder shall ensure that specifications, drawings, procedures and instructions do not conflict with the owner's design specifications. A system must be described in the Quality Assurance Manual to resolve or eliminate such conflicts. Resolution shall consider the Design Specification Requirements, as well as, the owner requirements, Jurisdictional and Regulatory Authority Requirements as applicable.
 7) Computer programs used for design analysis shall meet the requirements of NQA-1, Part II, Subpart 2.7 unless independently verified with the design analysis for each application.

1.6.-67.2 QUALITY PROGRAM ELEMENTS

d) Design Control

The provisions identified in ASME NQA-1, Part 1, Requirement 3, shall apply except Paragraph 601. The following additional requirements shall be considered when applicable:

- 1) The "NR" Certificate Holder shall establish measures to ensure applicable requirements of the owner's design specifications, owner's requirements, and code of construction requirements are correctly translated into drawings, specifications, procedures and instructions.
- 2) All design documents, including revisions, shall be verified by the "NR" Certificate Holder to be correct and adequate in accordance with the owners requirements.
- 3) Repair/replacement plans shall be completed prior to performing any work, inspections, examinations or testing; however repair/replacement plans are not required for the design phase of a repair/replacement activity including activities that require design only (except rerating).
- 4) The repair/replacement plan (see NBIC Part 3, Table 1.6.910) shall identify any applicable Code Edition/Addenda and Code Cases, owner's requirements and the Construction Code Edition/Addenda utilized to perform the work.
 5) The repair/replacement plan shall identify expected life of the item when less than the intended life as specified in the owner's design specification.
- 6) The "NR" Certificate Holder shall ensure that specifications, drawings, procedures and instructions do not conflict with the owner's design specifications. A system must be described in the Quality Assurance Manual to resolve or eliminate such conflicts. Resolution shall consider the Design Specification Requirements, as well as, the owner requirements, Jurisdictional and Regulatory Authority Requirements as applicable.
 7) Computer programs used for design analysis shall meet the requirements of NQA-1, Part II, Subpart 2.7 unless independently verified with the design analysis for each application.

Existing text – NBIC Part 3 – 2023

1.6.6.2 QUALITY PROGRAM ELEMENTS

e) Procurement Document Control
The provisions identified in ASME NQA-1, Part 1,
Requirement 4, shall apply. Procurement
documents shall require suppliers to provide a
Quality Assurance Program consistent with the
applicable requirements of ASME Section III and
this section.

New proposed text

1.6. 67.2 QUALITY PROGRAM ELEMENTS

e) Procurement Document Control
The provisions identified in ASME NQA-1, Part 1,
Requirement 4, shall apply. Procurement
documents shall require suppliers to provide a
Quality Assurance Program consistent with the
applicable requirements of ASME Section III and
this section.

f) Instructions, Procedures, and Drawings
The provisions identified in ASME NQA-1, Part 1,
Requirement 5, shall apply. All activities affecting
quality shall be prescribed by documented
instructions, procedures or drawings appropriate
for the scope of work to be performed.
Instructions, procedures or drawings shall
describe acceptance criteria to ensure quality
activities are accomplished.

1.6.67.2 QUALITY PROGRAM ELEMENTS

f) Instructions, Procedures, and Drawings
The provisions identified in ASME NQA-1, Part 1,
Requirement 5, shall apply. All activities affecting
quality shall be prescribed by documented
instructions, procedures or drawings appropriate
for the scope of work to be performed.
Instructions, procedures or drawings shall
describe acceptance criteria to ensure quality
activities are accomplished.

g) Document Control

The provisions identified in ASME NQA-1, Part 1, Requirement 6, shall apply. The Quality Assurance Program shall detail measures to control the preparation, review, issuance, use, approval and distribution of all documents related to quality as identified in the applicants Quality Assurance Program. Revisions shall meet the same requirements as the originals unless the applicant specifies other measures within their program. Measures shall ensure the latest approved documents represent the repair/replacement activities performed.

1.6.667.2 QUALITY PROGRAM ELEMENTS

g) Document Control

The provisions identified in ASME NQA-1, Part 1, Requirement 6, shall apply. The Quality Assurance Program shall detail measures to control the preparation, review, issuance, use, approval and distribution of all documents related to quality as identified in the applicants Quality Assurance Program. Revisions shall meet the same requirements as the originals unless the applicant specifies other measures within their program. Measures shall ensure the latest approved documents represent the repair/replacement activities performed.

h) Control of Purchased Material, Items, and Services

The provisions identified in ASME NQA-1, Part 1, Requirement 7 shall apply, except:

- 1) Procurement of Authorized Inspection Agency services is not applicable as specified in paragraph 507.
- 2) The decision to perform bid evaluation as described in paragraph 300 is the responsibility of the "NR" Certificate Holder.
- 3) For Certificates of Conformance specified in paragraph 503 changes, waivers, or deviations including resolution of non-conformances must meet the requirements of ASME Section III and this Section.
- 4) The provisions identified in ASME NQA-1, Part
- 1, Requirement 7, paragraph 700 are not applicable to this section.
- 5) Documentary evidence for items shall conform to the requirements of ASME Section III, NCA and this Section. Materials shall meet the material certification requirements as specified in ASME Section III, NCA-3800 or NCA-4470 as applicable. Documented evidence for ASME stamped items is satisfied by a Manufacturer's Data Report. Utilization of unqualified source material shall meet the requirements of ASME Section III, NCA-4255.5.
- 6) The "NR" Certificate Holder may obtain items from an owner, provided the owner provides the required documentation and items are identified to meet Code and the Certificate Holders Quality Assurance Program. The "NR" Certificate Holder shall not be required to audit the owner as an approved supplier, provided the items used are exclusively for the owner and the owner procured and controlled the items under the owner's Quality Assurance Program.
- 7) The Quality Assurance Program shall establish controls to ensure all purchased materials, items, and services conform to the requirements of the owner's design specifications and the code of construction Edition/Addenda used to perform the work. Materials shall meet the requirements specified in ASME Section III, NCA-3800 or NCA-4470 as applicable.

1.6. 67.2 QUALITY PROGRAM ELEMENTS

h) Control of Purchased Material, Items, and Services

The provisions identified in ASME NQA-1, Part 1, Requirement 7 shall apply, except:

- 1) Procurement of Authorized Inspection Agency services is not applicable as specified in paragraph 507.
- 2) The decision to perform bid evaluation as described in paragraph 300 is the responsibility of the "NR" Certificate Holder.
- 3) For Certificates of Conformance specified in paragraph 503 changes, waivers, or deviations including resolution of non-conformances must meet the requirements of ASME Section III and this Section.
- 4) The provisions identified in ASME NQA-1, Part
- 1, Requirement 7, paragraph 700 are not applicable to this section.
- 5) Documentary evidence for items shall conform to the requirements of ASME Section III, NCA and this Section. Materials shall meet the material certification requirements as specified in ASME Section III, NCA-3800 or NCA-4470 as applicable. Documented evidence for ASME stamped items is satisfied by a Manufacturer's Data Report. Utilization of unqualified source material shall meet the requirements of ASME Section III, NCA-4255.5.
- 6) The "NR" Certificate Holder may obtain items from an owner, provided the owner provides the required documentation and items are identified to meet Code and the Certificate Holders Quality Assurance Program. The "NR" Certificate Holder shall not be required to audit the owner as an approved supplier, provided the items used are exclusively for the owner and the owner procured and controlled the items under the owner's Quality Assurance Program.
- 7) The Quality Assurance Program shall establish controls to ensure all purchased materials, items, and services conform to the requirements of the owner's design specifications and the code of construction Edition/Addenda used to perform the work. Materials shall meet the requirements specified in ASME Section III, NCA-3800 or NCA-4470 as applicable.

- i) Identification and Control of Items
 The provisions identified in ASME NQA-1, Part 1,
 Requirement 8, shall apply and include the
 following additional requirements:
- 1) Controls shall assure only correct and acceptable items, parts and components are used or installed when performing repair/replacement activities.
- 2) Welding, brazing and fusing materials shall be identified and controlled.
- 3) Required Certified Material Test Reports and Certificates of Conformance shall be received, traceable to the items, reviewed to comply with the material specification and found acceptable.
- 4) The "NR" Certificate Holder shall utilize checklists to identify required characteristics using accepted procedures, compliance with records received, results of examinations and tests performed, range of values when required, and spaces for inclusion of document numbers and revision levels, signatures initials / stamps and dates of examinations or tests performed, verified, and/or witnessed by the "NR" Certificate Holder's qualified Representative and Authorized Nuclear Inspector.

1.6.-67.2 QUALITY PROGRAM ELEMENTS

- i) Identification and Control of Items
 The provisions identified in ASME NQA-1, Part 1,
 Requirement 8, shall apply and include the
 following additional requirements:
- 1) Controls shall assure only correct and acceptable items, parts and components are used or installed when performing repair/replacement activities.
- 2) Welding, brazing and fusing materials shall be identified and controlled.
- 3) Required Certified Material Test Reports and Certificates of Conformance shall be received, traceable to the items, reviewed to comply with the material specification and found acceptable.
- 4) The "NR" Certificate Holder shall utilize checklists to identify required characteristics using accepted procedures, compliance with records received, results of examinations and tests performed, range of values when required, and spaces for inclusion of document numbers and revision levels, signatures initials / stamps and dates of examinations or tests performed, verified, and/or witnessed by the "NR" Certificate Holder's qualified Representative and Authorized Nuclear-Inspector.

j) Control of Processes

The provisions identified in ASME NQA-1, Part 1, Requirement 9, shall apply. Documents used to control processes shall include spaces for signatures, initials, stamps and dates that activities were performed by the Certificate Holder's representative and the Authorized Nuclear Inspector when the processes conforms to the specified acceptance criteria as listed on drawings, procedures, instructions, specifications or other appropriate documents including revisions.

1.6. 67.2 QUALITY PROGRAM ELEMENTS

j) Control of Processes

The provisions identified in ASME NQA-1, Part 1, Requirement 9, shall apply. Documents used to control processes shall include spaces for signatures, initials, stamps and dates that activities were performed by the Certificate Holder's representative and the Authorized Nuclear Inspector when the processes conforms to the specified acceptance criteria as listed on drawings, procedures, instructions, specifications or other appropriate documents including revisions.

- k) Examinations, Tests, and Inspections The provisions identified in ASME NQA-1, Part 1, Requirement 10, shall apply, except paragraph 700 for inspections during operations is not required.
- 1) A repair/replacement plan shall be described in the Quality Assurance Manual that addresses required information to perform the work needed for repair/replacement activities. Spaces shall be included for mandatory hold points where witnessing is required by the "NR" Certificate Holder's Qualified Representative, the Authorized Nuclear Inspector or the owner's representative, if required. Work shall not proceed beyond designated mandatory hold points without documented consent as appropriate.
- 2) The following guidance is provided for information to be included within the repair/replacement plan:
- a. A detailed description of repair/replacement activities to be performed;
- b. Describe any defects and examination methods used to detect the defects;
- c. Defect removal method and requirements for identifying reference points;
- d. Any procedures including revisions utilized; (e.g. welding, brazing, heat treat, examination, testing) and material requirements;
- e. Required documentation and stamping;
- f. Acceptance criteria used to verify acceptability; and
- g. Applicable Code editions/addenda and code cases.
- 3) Repair/Replacement plans and evaluations shall be subject to review by the Jurisdictional and Regulatory Authority when required.

1.6.-67.2 QUALITY PROGRAM ELEMENTS

- k) Examinations, Tests, and Inspections The provisions identified in ASME NQA-1, Part 1, Requirement 10, shall apply, except paragraph 700 for inspections during operations is not required.
- 1) A repair/replacement plan shall be described in the Quality Assurance Manual that addresses required information to perform the work needed for repair/replacement activities. Spaces shall be included for mandatory hold points where witnessing is required by the "NR" Certificate Holder's Qualified Representative, the Authorized Nuclear Inspector or the owner's representative, if required. Work shall not proceed beyond designated mandatory hold points without documented consent as appropriate.
- 2) The following guidance is provided for information to be included within the repair/replacement plan:
- a. A detailed description of repair/replacement activities to be performed;
- b. Describe any defects and examination methods used to detect the defects;
- c. Defect removal method and requirements for identifying reference points;
- d. Any procedures including revisions utilized; (e.g. welding, brazing, heat treat, examination, testing) and material requirements;
- e. Required documentation and stamping;
- f. Acceptance criteria used to verify acceptability; and
- g. Applicable Code editions/addenda and code cases.
- 3) Repair/Replacement plans and evaluations shall be subject to review by the Jurisdictional and Regulatory Authority when required.

1.6.6.2 QUALITY PROGRAM ELEMENTSI) Test Control

The provisions identified in ASME NQA-1, Part 1, Requirement 11 shall apply. Testing shall be performed in accordance with written test procedures with acceptance criteria clearly defined. Prerequisites for performing each test to include calibration, equipment, trained personnel, environmental conditions and provisions for data acquisition shall be described. Test results shall be documented and evaluated by qualified personnel.

1.6.-67.2 QUALITY PROGRAM ELEMENTS 1) Test Control

The provisions identified in ASME NQA-1, Part 1, Requirement 11 shall apply. Testing shall be performed in accordance with written test procedures with acceptance criteria clearly defined. Prerequisites for performing each test to include calibration, equipment, trained personnel, environmental conditions and provisions for data acquisition shall be described. Test results shall be documented and evaluated by qualified personnel

- m) Control of Measuring and Test Equipment
 The "NR" Certificate Holder may utilize calibration
 and test activities performed by subcontractors
 when surveys and audits are performed. As an
 alternative to performing a survey and audit for
 procuring Laboratory Calibration and Test
 Services, the "NR" Certificate Holder as
 documented in their Quality Program may accept
 accreditation of an International Calibration and
 Test Laboratory Services by the International
 Laboratory Accreditation Cooperation (ILAC)
 Mutual Recognition Arrangement (MRA) provided
 this alternative method is described in the "NR"
 Certificate Holder's Quality Program and the
 following requirements are met:
- 1) The "NR" Certificate Holder shall review and document verification that the supplier of calibration or test services was accredited by an accredited body recognized by the ILAC MRA encompassing ISO/IEC-17025:2005 or 2017, "General Requirements for the Competence of Testing and Calibration Laboratories".
- 2) For procurement of calibration services, the published scope of accreditation for the calibration laboratory covers the needed measurement parameters, ranges and uncertainties.
- 3) For procurement of testing services, the published scope of accreditation for the test laboratory covers the needed testing services including test methodology and tolerances/uncertainty.
- 4) The "NR" Certificate Holder's purchase documents shall include:
- a. Service provided shall be in accordance with their accredited ISO/IEC-17025:2005 or 2017 program and scope of accreditation;
- b. As-found calibration data shall be reported in the certificate of calibration when items are found to be out-of-calibration;
- c. Standards used to perform calibration shall be identified in the certificate of calibration;
- d. Notification of any condition that adversely impacts the laboratories ability to maintain the scope of accreditation;
- e. Any additional technical and/or quality requirements, as necessary, which may include

1.6.67.2 QUALITY PROGRAM ELEMENTS

- m) Control of Measuring and Test Equipment
 The "NR" Certificate Holder may utilize calibration
 and test activities performed by subcontractors
 when surveys and audits are performed. As an
 alternative to performing a survey and audit for
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 Services, the "NR" Certificate Holder as
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 Laboratory Accreditation Cooperation (ILAC)
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 following requirements are met:
- 1) The "NR" Certificate Holder shall review and document verification that the supplier of calibration or test services was accredited by an accredited body recognized by the ILAC MRA encompassing ISO/IEC-17025:2005 or 2017, "General Requirements for the Competence of Testing and Calibration Laboratories"NR".
- 2) For procurement of calibration services, the published scope of accreditation for the calibration laboratory covers the needed measurement parameters, ranges and uncertainties.
- 3) For procurement of testing services, the published scope of accreditation for the test laboratory covers the needed testing services including test methodology and tolerances/uncertainty.
- 4) The "NR" Certificate Holder's purchase documents shall include:
- a. Service provided shall be in accordance with their accredited ISO/IEC-17025:2005 or 2017 program and scope of accreditation;
- b. As-found calibration data shall be reported in the certificate of calibration when items are found to be out-of-calibration;
- c. Standards used to perform calibration shall be identified in the certificate of calibration;
- d. Notification of any condition that adversely impacts the laboratories ability to maintain the scope of accreditation;
- e. Any additional technical and/or quality requirements, as necessary, which may include

tolerances, accuracies, ranges, and standards; and

- f. Service suppliers shall not subcontract services to any other supplier.
- 5) The "NR" Certificate Holder shall upon receipt inspection, validate that the laboratory documentation certifies that:
- a. Services provided by the laboratory has been performed in accordance with their ISO/IEC-17025:2005 or 2017 program and performed within their scope; and
- b. Purchase order requirements have been met.

tolerances, accuracies, ranges, and standards; and

- f. Service suppliers shall not subcontract services to any other supplier.
- 5) The "NR" Certificate Holder shall upon receipt inspection, validate that the laboratory documentation certifies that:
- a. Services provided by the laboratory has been performed in accordance with their ISO/IEC-17025:2005 or 2017 program and performed within their scope; and
- b. Purchase order requirements have been met.

Existing text -	NRIC Part 3 -	2023
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New proposed text

1.6.6.2 QUALITY PROGRAM ELEMENTS

n) Handling, Storage, and Shipping The provisions of ASME NQA-1, Part 1, and Requirement 13 shall apply.

1.6.-67.2 QUALITY PROGRAM ELEMENTS

n) Handling, Storage, and Shipping The provisions of ASME NQA-1, Part 1, and Requirement 13 shall apply.

o) Quality Assurance Records

The provisions identified in ASME NQA-1, Part 1, Requirement 17, shall apply, except Paragraphs 400, 500, and 600 are not applicable. The following requirements shall be followed:

- 1) Records shall be identifiable and retrievable;
- 2) Records shall be retained consistent with the owners requirements for duration, location and assigned responsibility;
- 3) Forms NR-1 and NVR-1 as applicable shall be completed by the "NR" Certificate Holder upon completion of all repair/replacement activities. Completion of forms, registrations and stamping of the "NR" symbol stamp shall meet the requirements of NBIC Part 3, Section 5. A log shall be maintained in accordance with NBIC Part 3, 5.6;
- 4) Lifetime and non-permanent records shall be as specified in ASME Section III, NCA-4134, Tables NCA-4134.17-1, and 4134.17-2;
- 5) Radiographs (digital images or film) may be reproduced provided that:
- a. The process shall be subject to owner's approval;
- b. The "NR" Certificate Holder is responsible for the process used and shall include a system for controlling and monitoring the accuracy so that the image will provide the same information as the original; and
- c. Procedures shall contain requirements for exposure scanning, focusing, contrast, resolution and distinguishing film artifacts as applicable for reproduced images.
- 6) Records shall be classified, maintained and indexed and shall be accessible to the owner, owner's designee, and the Authorized Nuclear Inspector; and
- 7) When the "NR" Certificate Holder is the owner, designated records and reports received by the owner, shall be filed and maintained in a manner to allow access by the Authorized Nuclear Inservice Inspector. Suitable protection from deterioration and damage shall be provided by the owner. All records and reports shall be retained as specified in the owners QAP for the lifetime of the component or system.

1.6. 67.2 QUALITY PROGRAM ELEMENTS

o) Quality Assurance Records

The provisions identified in ASME NQA-1, Part 1, Requirement 17, shall apply, except Paragraphs 400, 500, and 600 are not applicable. The following requirements shall be followed:

- 1) Records shall be identifiable and retrievable;
- 2) Records shall be retained consistent with the owners requirements for duration, location and assigned responsibility;
- 3) Forms NR-1 and NVR-1 as applicable shall be completed by the "NR" Certificate Holder upon completion of all repair/replacement activities. Completion of forms, registrations and stamping of the "NR" symbol stamp shall meet the requirements of NBIC Part 3, Section 5. A log shall be maintained in accordance with NBIC Part 3, 5.6;
- 4) Lifetime and non-permanent records shall be as specified in ASME Section III, NCA-4134, Tables NCA-4134.17-1, and 4134.17-2;
- 5) Radiographs (digital images or film) may be reproduced provided that:
- a. The process shall be subject to owner's approval;
- b. The "NR" Certificate Holder is responsible for the process used and shall include a system for controlling and monitoring the accuracy so that the image will provide the same information as the original; and
- c. Procedures shall contain requirements for exposure scanning, focusing, contrast, resolution and distinguishing film artifacts as applicable for reproduced images.
- 6) Records shall be classified, maintained and indexed and shall be accessible to the owner, owner's designee, and the Authorized Nuclear Inspector; and
- 7) When the "NR" Certificate Holder is the owner, designated records and reports received by the owner, shall be filed and maintained in a manner to allow access by the Authorized Nuclear Inservice Inspector. Suitable protection from deterioration and damage shall be provided by the owner. All records and reports shall be retained as specified in the owners QAP for the lifetime of the component or system.

p) Corrective Action

The provisions identified in ASME NQA-1, Part 1, Requirement 16 shall apply.

- 1) Measures shall be established to ensure that conditions adverse to quality such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and other non-conformances are promptly identified and corrected.
- 2) In the case of significant conditions adverse to quality, the measures shall also ensure that the cause of these conditions be determined and corrected to preclude repetition. The identification of significant conditions adverse to quality, the cause, condition, and the corrective action taken shall be documented and reported to the appropriate levels of management.
- 3) These requirements shall also extend to the performance of subcontractors's corrective action measures.

1.6. 67.2 QUALITY PROGRAM ELEMENTS

p) Corrective Action

The provisions identified in ASME NQA-1, Part 1, Requirement 16 shall apply.

- 1) Measures shall be established to ensure that conditions adverse to quality such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and other non-conformances are promptly identified and corrected.
- 2) In the case of significant conditions adverse to quality, the measures shall also ensure that the cause of these conditions be determined and corrected to preclude repetition. The identification of significant conditions adverse to quality, the cause, condition, and the corrective action taken shall be documented and reported to the appropriate levels of management.
- 3) These requirements shall also extend to the performance of subcontractors's corrective action measures.

q) Inspection or Test Status (not to include operating status)

The provisions identified in ASME NQA-1, Part 1, Requirement 14 shall apply. Measures shall be established to indicate inspection and test status of parts, items, or components during the repair/replacement activity. The system used shall provide positive identification of the part, item, or component by means of stamps, labels, routing cards, or other acceptable methods. The system shall include any procedures or instructions necessary to achieve compliance. Procedures shall be provided for the identification of acceptable and unacceptable items and for the control of status indicators. The authority for application and removal of status indicators shall also be specified.

1.6.—67.2 QUALITY PROGRAM ELEMENTS

q) Inspection or Test Status (not to include operating status)

The provisions identified in ASME NQA-1, Part 1, Requirement 14 shall apply. Measures shall be established to indicate inspection and test status of parts, items, or components during the repair/replacement activity. The system used shall provide positive identification of the part, item, or component by means of stamps, labels, routing cards, or other acceptable methods. The system shall include any procedures or instructions necessary to achieve compliance. Procedures shall be provided for the identification of acceptable and unacceptable items and for the control of status indicators. The authority for application and removal of status indicators shall also be specified.

r) Nonconforming Materials or Items The provisions identified in ASME NQA-1, Part 1, Requirement 15 shall apply. Measures shall be established to control materials or items that do not conform to requirements to prevent their inadvertent use, including measures to identify and control the proper installation of items and to preclude nonconformance with the requirements of these rules These measures shall include procedures for identification, documentation, segregation when practical, and disposition. Nonconforming items shall be reviewed for acceptance, rejection, or repair in accordance with documented procedures. The responsibility and authority for the disposition of nonconforming items shall be defined. Repaired or replaced items shall be re-examined in accordance with the applicable procedures. Measures that control further processing of a nonconforming or defective item, pending a decision on its disposition, shall be established and maintained. Ultimate disposition of nonconforming items shall be documented.

1.6. 67.2 QUALITY PROGRAM ELEMENTS

r) Nonconforming Materials or Items The provisions identified in ASME NQA-1, Part 1, Requirement 15 shall apply. Measures shall be established to control materials or items that do not conform to requirements to prevent their inadvertent use, including measures to identify and control the proper installation of items and to preclude nonconformance with the requirements of these rules These measures shall include procedures for identification, documentation, segregation when practical, and disposition. Nonconforming items shall be reviewed for acceptance, rejection, or repair in accordance with documented procedures. The responsibility and authority for the disposition of nonconforming items shall be defined. Repaired or replaced items shall be re-examined in accordance with the applicable procedures. Measures that control further processing of a nonconforming or defective item, pending a decision on its disposition, shall be established and maintained. Ultimate disposition of nonconforming items shall be documented.

1.6.6.2 QUALITY PROGRAM ELEMENTS s) Audits

The provisions identified in ASME NQA-1, Part 1, Requirement 18 shall apply and shall include the following:

A comprehensive system of planned and periodic audits of the "NR" Certificate Holder's Quality Assurance Program shall be performed. Internal and Supplier Audit frequencies shall be specified in the organization's Quality Assurance Manual. Internal Audits shall be conducted at least annually (within 12 months) for any ongoing code activity to verify compliance with Quality Assurance Program requirements and/or performance criteria, and to determine the effectiveness of the Quality Assurance Program. When no code work has been performed, the internal audit need only include those areas of responsibility required to be continually maintained, such as training, audits, organizational structure, and Quality Assurance Program revisions, etc. External audits (e.g., Supplier audits) of organizations with certification/accreditation permitted by ASME may not be required if acceptable to the Regulatory Authority. The Quality Assurance Manual shall as a minimum describe the following:

- 1) Audits shall be performed in accordance with written procedures or checklists by qualified audit personnel not having direct responsibility in areas being audited;
- 2) Audit personnel shall be qualified in accordance with the current requirements of ASME NQA-1;
- 3) Audit results shall be documented and reviewed by responsible management for adequacy and effectiveness of the quality assurance program;
- 4) Requirements for follow-up actions shall be specified for any deficiencies noted during the audit:
- 5) Audit records and applicable documentation shall be made available to the Authorized Nuclear Inspection Agency for review; and
- 6) Audit records shall include as a minimum;
- a. Written procedures;

1.6.-67.2 QUALITY PROGRAM ELEMENTS s) Audits

The provisions identified in ASME NQA-1, Part 1, Requirement 18 shall apply and shall include the following:

A comprehensive system of planned and periodic audits of the "NR" Certificate Holder's Quality Assurance Program shall be performed. Internal and Supplier Audit frequencies shall be specified in the organization's Quality Assurance Manual. Internal Audits shall be conducted at least annually (within 12 months) for any ongoing code activity to verify compliance with Quality Assurance Program requirements and/or performance criteria, and to determine the effectiveness of the Quality Assurance Program. When no code work has been performed, the internal audit need only include those areas of responsibility required to be continually maintained, such as training, audits, organizational structure, and Quality Assurance Program revisions, etc. External audits (e.g., Supplier audits) of organizations with certification/accreditation permitted by ASME may not be required if acceptable to the Regulatory Authority. The Quality Assurance Manual shall as a minimum describe the following:

- 1) Audits shall be performed in accordance with written procedures or checklists by qualified audit personnel not having direct responsibility in areas being audited;
- 2) Audit personnel shall be qualified in accordance with the current requirements of ASME NQA-1:
- 3) Audit results shall be documented and reviewed by responsible management for adequacy and effectiveness of the quality assurance program;
- 4) Requirements for follow-up actions shall be specified for any deficiencies noted during the audit;
- 5) Audit records and applicable documentation shall be made available to the Authorized Nuclear Inspection Agency for review; and
- 6) Audit records shall include as a minimum;
- a. Written procedures;

- b. Checklists;
- c. Reports;
- d. Written replies; and
- e. Completion of corrective actions.
 Performance of Authorized Inspection Agency
 audits required by ASME QAI-1 and NB-263, RCI-1
 shall be addressed in the Quality Assurance
 Manual.
- b. Checklists;
- c. Reports;
- d. Written replies; and
- e. Completion of corrective actions.

 Performance of Authorized Inspection Agency audits required by ASME QAI-1 and NB-263, RCI-1 shall be addressed in the Quality Assurance Manual.

t) Authorized Nuclear Inspector Measures shall be taken to reference the commissioned rules for the National Board Authorized Nuclear Inspector, in accordance with NB-263, RCI-1 Rules for Commissioned Inspectors. The Authorized Nuclear Inspector shall hold the "N", "I", and "R" endorsements on his/her Commission. The "NR" Certificate Holder shall ensure that the latest documents, including the Quality Assurance Manual, procedures, and instructions, are made available to the Authorized Nuclear Inspector. The Authorized Nuclear Inspector shall be consulted prior to the issuance of a repair/replacement plan by the "NR" Certificate Holder in order that the Authorized Nuclear Inspector may select any in-process inspection or hold points when performing repair/replacement activities. The "NR" Certificate Holder shall keep the Authorized Nuclear Inspector informed of progress of the repair/replacement activity so that inspections may be performed. The Authorized Nuclear Inspector shall not sign Form NR-1 or Form NVR-1, as applicable, unless satisfied that all work carried out is in accordance with this section. The Authorized Nuclear Inspector and Authorized Nuclear Inspector Supervisor shall have access to areas where work is being performed, including subcontractors facilities, in order to perform their required duties. The ANI shall be involved in dispositions and verification for nonconformances and corrective actions involving quality or code requirements. Additional requirements regarding Owner Interface are specified in 1.6.9.

1.6.—67.2 QUALITY PROGRAM ELEMENTS

t) Authorized Nuclear Inspector Measures shall be taken to reference the commissioned rules for the National Board Authorized Nuclear Inspector, in accordance with NB-263, RCI-1 Rules for Commissioned Inspectors. The Authorized Nuclear Inspector shall hold the "N", "I", and "R" endorsements on his/her Commission. The "NR" Certificate Holder shall ensure that the latest documents, including the Quality Assurance Manual, procedures, and instructions, are made available to the Authorized **Nuclear** Inspector. The Authorized Nuclear Inspector shall be consulted prior to the issuance of a repair/replacement plan by the "NR" Certificate Holder in order that the Authorized Nuclear Inspector may select any in-process inspection or hold points when performing repair/replacement activities. The "NR" Certificate Holder shall keep the Authorized Nuclear Inspector informed of progress of the repair/replacement activity so that inspections may be performed. The Authorized Nuclear Inspector shall not sign Form NR-1 or Form NVR-1, as applicable, unless satisfied that all work carried out is in accordance with this section. The **Authorized Nuclear** Inspector and Authorized Nuclear Inspector Supervisor shall have access to areas where work is being performed, including subcontractors facilities, in order to perform their required duties. The ANI Inspector shall be involved in dispositions and verification for nonconformances and corrective actions involving quality or code requirements. Additional requirements regarding Owner Interface are specified in 1.6.910.

1.6.6.2 QUALITY PROGRAM ELEMENTS u) Exhibits

Forms and exhibits referenced in the Quality Assurance Manual shall be explained in the text and included as part of the referencing document or as an appendix to the Quality Assurance Manual. Forms shall be controlled and identified to show the latest approved revision, name, and other corresponding references as stated in the Quality Assurance Manual.

1.6.-67.2 QUALITY PROGRAM ELEMENTS u) Exhibits

Forms and exhibits referenced in the Quality Assurance Manual shall be explained in the text and included as part of the referencing document or as an appendix to the Quality Assurance Manual. Forms shall be controlled and identified to show the latest approved revision, name, and other corresponding references as stated in the Quality Assurance Manual.

1.6.7 QUALITY ASSURANCE PROGRAM REQUIREMENTS FOR CATEGORY 2 ACTIVITIES

1.6.7.1 SCOPE

Owners or organizations other than owners shall have a written Quality Assurance Program meeting one of the criteria specified in Table 1.6.2 of this section. Organizations applying for a Category 2 "NR" Certificate of Authorization shall specify in their written Quality Assurance Program which program criteria their Quality Assurance Program follows. Owners shall have a Quality Assurance Program meeting the requirements of either 10 CFR 50, Appendix B or NQA-1 Part 1 and shall include the additional requirements specified in ASME Section XI Division I, IWA-4142 when applicable. Organizations other than the owner shall comply with requirements specified in either 10 CFR 50, Appendix B supplemented as needed with the owner's QAP; NQA-1 Part 1; or NCA-4000. Organizations may elect to choose to follow all the rules specified in one of the allowed QAP criteria specified in Table 1.6.2 or they may elect to combine or supplement requirements from other specified QAP's. When organizations elect to combine QAP requirements, it shall be clearly specified and understood in the QAM which QAP requirement is being followed for each activity specified in their QAM. The following quality elements shall be specified and described within the QAM.

1.6.78. QUALITY ASSURANCE PROGRAM REQUIREMENTS FOR CATEGORY 2 ACTIVITIES

1.6.78.1 SCOPE

Owners or organizations other than owners shall have a written Quality Assurance Program meeting one of the criteria specified in Table 1.6.2 of this section. Organizations applying for a Category 2 "NR" Certificate of Authorization shall specify in their written Quality Assurance Program which program criteria their Quality Assurance Program follows. Owners shall have a Quality Assurance Program meeting the requirements of either 10 CFR 50, Appendix B or NQA-1 Part 1 and shall include the additional requirements specified in ASME Section XI Division I, IWA-4142 when applicable. Organizations other than the owner shall comply with requirements specified in either 10 CFR 50, Appendix B supplemented as needed with the owner's QAP; NQA-1 Part 1; or NCA-4000. Organizations may elect to choose to follow all the rules specified in one of the allowed QAP criteria specified in Table 1.6.2 or they may elect to combine or supplement requirements from other specified QAP's. When organizations elect to combine QAP requirements, it shall be clearly specified and understood in the QAM which QAP requirement is being followed for each activity specified in their QAM. The following quality elements shall be specified and described within the QAM.

a) Organization

The authority and responsibility for individuals involved in activities affecting quality shall be clearly established and documented throughout the Quality Assurance Program and identified on a functional organizational chart contained within the QA Manual.

1.6. 78.2 QUALITY PROGRAM ELEMENTS

a) Organization

The authority and responsibility for individuals involved in activities affecting quality shall be clearly established and documented throughout the Quality Assurance Program and identified on a functional organizational chart contained within the QA Manual.

- b) Statement of Policy and Authority shall:
- 1) identify the titles of individuals who have the authority and responsibility charged with ensuring the quality program is implemented as described;
- 2) confirm their freedom in the organization to identify quality problems and to initiate, recommend and provide solutions;
- 3) include a statement that if there is a disagreement in the implementation of the quality assurance program, the matter is to be referred for resolution to a higher authority and shall be resolved in a manner that will not conflict with code, jurisdiction/regulatory authority or quality program requirements;
- 4) include a statement of the full support of management; and
- 5) be dated and signed by a senior management official within the organization.

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- 4) include a statement of the full support of management; and
- 5) be dated and signed by a senior management official within the organization.

- c) Quality Assurance Program (QAP)
- 1) Qualification of non-destructive examination personnel shall be as required by the code or as specified in the owner's Quality Assurance Program.
- 2) Prior to returning an item to service, the owner shall evaluate the suitability of the item subjected to the repair/replacement activity. Corrective actions shall be taken when an item is determined to be deficient or does not satisfy the requirements of this section.
- 3) The "NR" Certificate Holder shall provide a copy of the Quality Assurance Manual to the owner for review and acceptance. The "NR" Certificate Holder shall make a current controlled copy of the Quality Assurance Manual available to the Authorized Nuclear Inspector and Authorized Nuclear Inspector Supervisor. When a repair/replacement activity is split between the owner and an "NR" Certificate Holder, each Quality Assurance Program shall comply with this section for their respective activities. The owner shall establish interfaces for assuring this section is met for the two Quality Assurance Programs. 4) The "NR" Certificate Holder shall be responsible for advising the Authorized Nuclear Inspection Agency of proposed changes to the Quality Assurance Manual to obtain acceptance of the Authorized Nuclear Inspector Supervisor before putting such changes into effect. The Certificate Holder shall be responsible for notifying the Authorized Nuclear Inspector of QAM changes, including evidence of acceptance by the Authorized Nuclear Inspector Supervisor. 5) The Quality Assurance Manual need not be in the same format or sequential arrangement as the requirements in these rules as long as all applicable requirements have been covered. 6) The "NR" Certificate Holder shall implement and maintain a program for qualification, indoctrination, training and maintaining proficiency of personnel involved with quality functions, including personnel of subcontracted

services.

- c) Quality Assurance Program (QAP)
- 1) Qualification of non-destructive examination personnel shall be as required by the code or as specified in the owner's Quality Assurance Program.
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- 7) The "NR" Certificate Holder shall address in their QAM the requirements for interfacing with the owner specified in 1.6.9 of this section.

 8) Specified controls including responsibilities for personnel shall be described in the quality
- 7) The "NR" Certificate Holder shall address in their QAM the requirements for interfacing with the owner specified in 1.6.910 of this section.

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assurance program.

- d) Design Control
- 1) Repair/replacement activities, code edition and addenda used shall correspond with the owner's Inservice Inspection Program unless later code editions and addenda have been accepted by the owner, the Enforcement and/or the Regulatory authority having jurisdiction at the plant site.
 2) The repair/replacement plan (see NBIC Part 3, 1.6.7.2 j)) shall identify expected life of the item when less than the intended life as specified in
- 2) The repair/replacement plan (see NBIC Part 3, 1.6.7.2 j)) shall identify expected life of the item when less than the intended life as specified in the owner's requirements and the owner shall be advised of the condition.
- 3) The "NR" Certificate Holder shall assure that specifications, drawings, procedures and instructions do not conflict with the owner's requirements. A system must be described in the Quality Assurance Manual to resolve or eliminate such conflicts. Resolution shall consider the design specification requirements, as well as, the owner Requirements, Jurisdictional and Regulatory requirements as applicable.
- 4) ASME Section XI Division I establishes that the owner is responsible for design in connection with repair/replacement activities. The "NR" Certificate Holder must ensure that the design specification, drawings, or other specifications or instructions furnished by the owner satisfy the code edition and addenda of the owner's requirements. To satisfy this requirement, the "NR" Certificate Holder shall establish requirements that correctly incorporate the owner's requirements into their specifications, drawings, procedures, and instructions, which may be necessary to carry out the work. The "NR" Certificate Holder's system shall include provisions to ensure that the appropriate quality standards are specified and included in all quality records. These records shall be reviewed for compliance with the owner's requirements and the requirements of ASME Section XI Division I.

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e) Procurement Document Control Procurement documents shall require suppliers to provide a Quality Assurance Program consistent with the applicable requirements of ASME Section III, NCA and this section. Documents for procurement of materials, items, and subcontracted services shall include requirements to the extent necessary to ensure compliance with the owner's requirements and IWA-4000 of ASME Section XI Division I. To the extent necessary, procurement documents shall require suppliers to maintain a Quality Assurance Program consistent with the applicable requirements of the edition and addenda of the code of construction to which the items are constructed. Measures shall be established to ensure that all purchased material, items, and services conform to these requirements.

1.6. 78.2 QUALITY PROGRAM ELEMENTS

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f) Instructions, Procedures, and Drawings Repair/replacement plans and any verification of acceptability (evaluations) shall be subject to review by Jurisdiction and Regulatory Authorities having jurisdiction at the plant site. Activities affecting quality shall be prescribed by documented instructions, procedures or drawings of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings. Instructions, procedures, or drawings shall include appropriate quantitative and qualitative criteria for determining that activities affecting quality have been satisfactorily accomplished. The "NR" Certificate Holder shall maintain a written description of procedures, instructions, or drawings used by the organization for control of quality and examination requirements detailing the implementation of the Quality Assurance Program requirements. Copies of these procedures shall be readily available to the Authorized Nuclear Inspector and Authorized Nuclear Inservice Inspector, as applicable.

1.6.78.2 QUALITY PROGRAM ELEMENTS

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g) Document Control

The program shall include measures to control the issuance, use, and disposition of documents, such as specifications, instructions, procedures, and drawings, including changes thereto. These measures shall ensure that the latest applicable documents, including changes, are reviewed for adequacy and approved for release by authorized personnel and distributed for use at the location where the prescribed activity is performed.

1.6.78.2 QUALITY PROGRAM ELEMENTS

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h) Control of Purchased Material, Items, and Services

Purchase of materials and small products shall meet the requirements specified in ASME Section XI Division I, IWA 4142. Measures shall be established to ensure that purchased material, items, and services conform to the owner's requirements and applicable edition and addenda of the code of construction and ASME Section XI Division I. These measures shall include identification for material traceability. Provisions shall be identified for source evaluation and objective evidence shall be provided evidencing quality standards for material examination upon receipt.

1.6.78.2 QUALITY PROGRAM ELEMENTS

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Purchase of materials and small products shall meet the requirements specified in ASME Section XI Division I, IWA 4142. Measures shall be established to ensure that purchased material, items, and services conform to the owner's requirements and applicable edition and addenda of the code of construction and ASME Section XI Division I. These measures shall include identification for material traceability. Provisions shall be identified for source evaluation and objective evidence shall be provided evidencing quality standards for material examination upon receipt.

- i) Identification and Control of Items
- 1) Measures shall be established for identification and control of material and items, including partially fabricated assemblies. These measures shall ensure that identification is maintained and traceable, either on the material or component, or on records throughout the repair/replacement activity. These measures shall be designed to prevent the use of incorrect or defective items and those which have not received the required examinations, tests, or inspections.
- 2) Identification for traceability shall be applied using methods and materials that are legible and not detrimental to the component or system involved. Such identification shall be located in areas that will not interfere with the function or quality aspects of the item.
- 3) Certified Material Test Reports shall be identified as required by the applicable material specification in ASME Section II and shall satisfy any additional requirements specified in the original code of construction. The Certified Material Test Report or Certificate of Compliance need not be duplicated for submission with compliance documents when a record of compliance and satisfactory reviews of the Certified Material Test Report and Certificate of Compliance is provided. Quality documents shall provide a record that the Certified Material Test Report and Certificate of Compliance have been received, reviewed, and found acceptable. When the "NR" Certificate Holder authorizes a subcontracted organization to perform examinations and tests in accordance with the original code of construction, the "NR" Certificate Holder shall certify compliance either on a Certified Material Test Report or Certificate of Compliance that the material satisfies the original code of construction requirements.

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- j) Control of Processes
- 1) The "NR" Certificate Holder shall operate under a controlled system such as process sheets, checklists, travelers, plans or equivalent procedures. Measures shall be established to ensure that processes such as welding, nondestructive examination, and heat treating are controlled in accordance with the rules of the applicable section of the ASME Code and are accomplished by qualified personnel using qualified procedures.
- 2) Process sheets, checklists, travelers, or equivalent documentation shall be prepared, including the document numbers and revisions to which the process conforms with space provided for reporting results of completion of specific operations at checkpoints of repair/replacement activities.

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- k) Examinations, Tests, and Inspections
- 1) A repair/replacement plan shall be prepared in accordance with the Quality Assurance Program whenever repair/replacement activities are performed. As a minimum, the repair/replacement plan shall include the requirements specified in ASME Section XI Division I, IWA-4150.
- 2) In-process and final examinations and tests shall be established to ensure conformance with specifications, drawings, instructions, and procedures which incorporate or reference the requirements and acceptance criteria contained in applicable design documents. Inspection, test and examination activities to verify the quality of work shall be performed by persons other than those who performed the activity being examined. Such persons shall not report directly to the immediate supervisors responsible for the work being examined.
- 3) Process sheets, travelers, or checklists shall be prepared, including the document numbers and revision to which the examination or test is to be performed, with space provided for recording results.
- 4) Mandatory hold/inspection points at which witnessing is required by the "NR" Certificate Holder's representative or the Authorized Nuclear Inspector/Authorized Nuclear Inservice Inspector shall be indicated in the controlling documents. Work shall not proceed beyond mandatory hold/inspection points without the consent of the "NR" Certificate Holder's representative or the Authorized Nuclear Inspector/Authorized Nuclear Inservice Inspector, as applicable.

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- I) Test Control
- 1) Testing shall be performed in accordance with the owner's written test procedures or procedures acceptable to the owner, that incorporate or reference the requirements and acceptance criteria contained in applicable design documents.
- 2) Test procedures shall include provisions for ensuring that prerequisites for the given test have been met, that adequate instrumentation is available and used, and that necessary monitoring is performed. Prerequisites may include calibrated instrumentation, appropriate equipment, trained personnel, condition of test equipment, the item to be tested, suitable environmental conditions, and provisions for data acquisition.
- 3) Test results shall be documented and evaluated to ensure that test requirements have been satisfied.

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- 3) Test results shall be documented and evaluated to ensure that test requirements have been satisfied.

- m) Control of Measuring and Test Equipment
 The "NR" Certificate Holder may utilize calibration
 and test activities performed by subcontractors
 when surveys and audits are performed. As an
 alternative to performing a survey and audit for
 procuring Laboratory Calibration and Test
 Services, the "NR" Certificate Holder as
 documented in their Quality Program may accept
 accreditation of an International Calibration and
 Test Laboratory Services by the International
 Laboratory Accreditation Cooperation (ILAC)
 Mutual Recognition Arrangement (MRA) provided
 this alternative method is described in the "NR"
 Certificate Holder's Quality Program and the
 following requirements are met:
- 1) The "NR" Certificate Holder shall review and document verification that the supplier of calibration or test services was accredited by an accredited body recognized by the ILAC MRA encompassing ISO/IEC-17025:2005 or 2017, "General Requirements for the Competence of Testing and Calibration Laboratories";
- 2) For procurement of calibration services, the published scope of accreditation for the calibration laboratory covers the needed measurement parameters, ranges and uncertainties;
- 3) For procurement of testing services, the published scope of accreditation for the test laboratory covers the needed testing services including test methodology and tolerances/uncertainty;
- 4) The "NR" Certificate Holder's purchase documents shall include:
- a. Service provided shall be in accordance with their accredited ISO/IEC-17025:2005 or 2017 program and scope of accreditation;
- b. As-found calibration data shall be reported in the certificate of calibration when items are found to be out-of-calibration;
- c. Standards used to perform calibration shall be identified in the certificate of calibration;
- d. Notification of any condition that adversely impacts the laboratories ability to maintain the scope of accreditation;

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- 2) For procurement of calibration services, the published scope of accreditation for the calibration laboratory covers the needed measurement parameters, ranges and uncertainties;
- 3) For procurement of testing services, the published scope of accreditation for the test laboratory covers the needed testing services including test methodology and tolerances/uncertainty;
- 4) The "NR" Certificate Holder's purchase documents shall include:
- a. Service provided shall be in accordance with their accredited ISO/IEC-17025:2005 or 2017 program and scope of accreditation;
- b. As-found calibration data shall be reported in the certificate of calibration when items are found to be out-of-calibration;
- c. Standards used to perform calibration shall be identified in the certificate of calibration;
- d. Notification of any condition that adversely impacts the laboratories ability to maintain the scope of accreditation;

- e. Any additional technical and/or quality requirements, as necessary, which may include tolerances, accuracies, ranges, and standards; and
- f. Service suppliers shall not subcontract services to any other supplier.
- 5) The "NR" Certificate Holder shall upon receipt inspection, validate that the laboratory documentation certifies that:
- a. Services provided by the laboratory has been performed in accordance with their ISO/IEC-17025:2005 or 2017 program and performed within their scope; and
- b. Purchase order requirements have been met.

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n) Handling, Storage, and Shipping Measures and controls shall be established to maintain quality requirements for handling, storage, and shipping of parts, materials, items, and components.

1.6. 78.2 QUALITY PROGRAM ELEMENTS

n) Handling, Storage, and Shipping Measures and controls shall be established to maintain quality requirements for handling, storage, and shipping of parts, materials, items, and components.

o) Quality Assurance Records

Documentation, reports and records shall be in accordance with ASME Section XI Division I, IWA-6000.

- 1) The owner is responsible for designating records to be maintained. Measures shall be established for the "NR" Certificate Holder to maintain these records [see NBIC Part 3, 1.6.7.2.0) 2)] required for Quality Assurance of repair/replacement activities. These shall include documents such as records of materials, manufacturing, examination, and test data taken before and during repair/replacement activity. Procedures, specifications, and drawings used shall be fully identified by pertinent material or item identification numbers, revision numbers, and issue dates. The records shall also include related data such as personnel qualification, procedures, equipment, and related repairs. The
- "NR" Certificate Holder shall take such steps as may be required to provide suitable protection from deterioration and damage for records while in his care. Also, it is required that the "NR" Certificate Holder have a system for correction or amending records that satisfies the owner's requirements. These records may be either the original or a reproduced, legible copy and shall be transferred to the owner upon request.
- 2) Records to be maintained as required in NBIC Part 3, 1.6.7.2 o) 1) above shall include the following, as applicable:
- a. An index that details the location and individual responsible for maintaining the records;
- b. Manufacturer's Data Reports, properly executed, for each replacement component, part, appurtenance, piping system, and piping assembly, when required by the design specification or the owner;
- c. The required as-constructed drawings certified as to correctness;
- d. Copies of applicable Certified Material Test Reports and Certificates of Compliance;
- e. As-built sketch(es) including tabulations of materials repair/replacement procedures, and instructions to achieve compliance with ASME Section XI Division I;

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- f. Nondestructive examination reports, including results of examinations, shall identify the name and certification level of personnel interpreting the examination results. Final radiographs shall be included where radiography has been performed. Radiographs may be microfilmed or digitally reproduced in accordance with the requirements listed in ASME Section V, Article 2, Mandatory Appendix VI. The accuracy of the reproduction process shall be verified and monitored for legibility, storage, retrievability and reproduction quality;
- g. Records of heat treatments may be either the heat treatment charts or a summary description of heat treatment time and temperature data certified by the "NR" Certificate Holder. Heat treatments performed by the material manufacturer to satisfy requirements of the material specifications may be reported on the Certified Material Test Report; and
- h. Nonconformance reports shall satisfy IWA-4000 of ASME Section XI Division I and shall be reconciled by the owner prior to certification of the Form NR-1 or NVR-1, as applicable.
- 3) After a repair/replacement activity, all records including audit reports required to verify compliance with the applicable engineering documents and the "NR" Certificate Holder's Quality Assurance Program, shall be maintained at a place mutually agreed upon by the owner and the "NR" Certificate Holder. The "NR" Certificate Holder shall maintain records and reports for a period of five years after completion of the repair/replacement activity.
- 4) When the "NR" Certificate Holder is the owner, designated records and reports received by the owner, shall be filed and maintained in a manner to allow access by the Authorized Nuclear Inservice Inspector. Suitable protection from deterioration and damage shall be provided by the owner. These records and reports shall be retained as specified in the owners QAP for the lifetime of the component or system.
- 5) The original of the completed Form NR-1 or Form NVR-1, as applicable, shall be registered with the National Board and, if required, a copy forwarded to the Jurisdiction where the nuclear

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power plant is located. A log shall be maintained	power plant is located. A log shall be maintained
in accordance with NBIC Part 3, 5.6.	in accordance with NBIC Part 3, 5.6.

- p) Corrective Action
- 1) Measures shall be established to ensure that conditions adverse to quality such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and other nonconformances are promptly identified, controlled and corrected.
- 2) In the case of significant conditions adverse to quality, the measures shall also ensure that the cause of these conditions be determined and corrected to preclude repetition. The identification of significant conditions adverse to quality, the cause, condition, and the corrective action taken shall be documented and reported to the appropriate levels of management.
- 3) Corrective action requirements shall also extend to the performance of subcontractors' activities.

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- 3) Corrective action requirements shall also extend to the performance of subcontractors' activities.

q) Inspection or Test Status (not to include operating status)

Measures shall be established to indicate examination and test status of parts, items, or components during the repair/replacement activity. The system used shall provide positive identification of the part, item, or component by means of stamps, labels, routing cards, or other acceptable methods. The system shall include any procedures or instructions necessary to achieve compliance. Also, measures shall be provided for the identification of acceptable and unacceptable items. They shall also include procedures for control of status indicators, including the authority for application and removal of status indicators.

1.6.-78.2 QUALITY PROGRAM ELEMENTS

q) Inspection or Test Status (not to include operating status)

Measures shall be established to indicate examination and test status of parts, items, or components during the repair/replacement activity. The system used shall provide positive identification of the part, item, or component by means of stamps, labels, routing cards, or other acceptable methods. The system shall include any procedures or instructions necessary to achieve compliance. Also, measures shall be provided for the identification of acceptable and unacceptable items. They shall also include procedures for control of status indicators, including the authority for application and removal of status indicators.

- r) Nonconforming Materials or Items
- 1) Measures shall be established to control materials or items that do not conform to specified requirements to prevent their inadvertent use, including measures to identify and control the proper installation of items and to preclude nonconformance with the requirements of these rules. These measures shall include procedures for identification, documentation, segregation, and disposition. Nonconforming items shall be reviewed for acceptance, rejection, or repair in accordance with documented procedures. The responsibility and authority for the disposition of nonconforming items shall be defined. Repaired/replaced or altered items shall be re-examined in accordance with the applicable procedures.
- 2) Measures that control further processing of a nonconforming or defective item, pending a decision on its disposition, shall be established and maintained. Ultimate disposition of nonconforming items shall be documented.

- r) Nonconforming Materials or Items
- 1) Measures shall be established to control materials or items that do not conform to specified requirements to prevent their inadvertent use, including measures to identify and control the proper installation of items and to preclude nonconformance with the requirements of these rules. These measures shall include procedures for identification, documentation, segregation, and disposition. Nonconforming items shall be reviewed for acceptance, rejection, or repair in accordance with documented procedures. The responsibility and authority for the disposition of nonconforming items shall be defined. Repaired/replaced or altered items shall be re-examined in accordance with the applicable procedures.
- 2) Measures that control further processing of a nonconforming or defective item, pending a decision on its disposition, shall be established and maintained. Ultimate disposition of nonconforming items shall be documented.

1.6.7.2 QUALITY PROGRAM ELEMENTS s) Audits

A comprehensive system of planned and periodic audits of the "NR" Certificate Holder's Quality Assurance Program shall be performed. Internal and External Audit frequencies shall be specified in the organization's Quality Assurance Manual. Internal Audits shall be conducted at least annually (within 12 months) to verify compliance with Quality Assurance Program requirements and/or performance criteria, and to determine the effectiveness of the Quality Assurance Program. When no code work has been performed, the internal audit need only include those areas of responsibility required to be continually maintained, such as training, audits, organizational structure, Quality Assurance Program revisions, etc. External audits (e.g., Supplier audits) shall be performed on a triennial basis and supplemented by annual evaluations of the Supplier's performance to determine if the regular schedule audit frequency shall be maintained or decreased or if other corrective action is required. A continuous or ongoing evaluation of the Supplier's performance may be conducted in lieu of the annual evaluations, provided that the results are reviewed in order to determine if corrective action is required. A grace period of 90 days may be applied to scheduled audits and annual evaluations of supplier performance. When the grace period is used, the next scheduled date for the activity shall be based on the activity schedule date and not on the date the activity was actually performed. If the activity is performed early, the next schedule date shall be based on the date the activity was actually performed. The Quality Assurance Manual shall as a minimum describe the following:

- 1) Audits shall be performed in accordance with written procedures or checklists by qualified audit personnel not having direct responsibility in areas being audited;
- 2) Audit personnel shall be qualified in accordance with the current requirements of NQA-1;

1.6.-78.2 QUALITY PROGRAM ELEMENTS s) Audits

A comprehensive system of planned and periodic audits of the "NR" Certificate Holder's Quality Assurance Program shall be performed. Internal and External Audit frequencies shall be specified in the organization's Quality Assurance Manual. Internal Audits shall be conducted at least annually (within 12 months) to verify compliance with Quality Assurance Program requirements and/or performance criteria, and to determine the effectiveness of the Quality Assurance Program. When no code work has been performed, the internal audit need only include those areas of responsibility required to be continually maintained, such as training, audits, organizational structure, Quality Assurance Program revisions, etc. External audits (e.g., Supplier audits) shall be performed on a triennial basis and supplemented by annual evaluations of the Supplier's performance to determine if the regular schedule audit frequency shall be maintained or decreased or if other corrective action is required. A continuous or ongoing evaluation of the Supplier's performance may be conducted in lieu of the annual evaluations, provided that the results are reviewed in order to determine if corrective action is required. A grace period of 90 days may be applied to scheduled audits and annual evaluations of supplier performance. When the grace period is used, the next scheduled date for the activity shall be based on the activity schedule date and not on the date the activity was actually performed. If the activity is performed early, the next schedule date shall be based on the date the activity was actually performed. The Quality Assurance Manual shall as a minimum describe the following:

- 1) Audits shall be performed in accordance with written procedures or checklists by qualified audit personnel not having direct responsibility in areas being audited;
- 2) Audit personnel shall be qualified in accordance with the current requirements of NQA-1;

- 3) Audit results shall be documented and reviewed by responsible management for adequacy and effectiveness of the quality assurance program;
- 4) Requirements for follow-up actions for any deficiencies noted during the audit;
- 5) Audit records and applicable documentation shall be made available to the Authorized Nuclear Inspection Agency for review; and
- 6) Audit records shall include as a minimum:
- a. written procedures;
- b. checklists;
- c. reports;
- d. written replies; and
- e. completion of corrective actions.

 Performance of Authorized Inspection Agency
 audits required by ASME QAI-1 and NB-263, RCI-1
 shall be addressed in the Quality Assurance
 Manual.

- 3) Audit results shall be documented and reviewed by responsible management for adequacy and effectiveness of the quality assurance program;
- 4) Requirements for follow-up actions for any deficiencies noted during the audit;
- 5) Audit records and applicable documentation shall be made available to the Authorized Nuclear Inspection Agency for review; and
- 6) Audit records shall include as a minimum:
- a. written procedures;
- b. checklists;
- c. reports;
- d. written replies; and
- e. completion of corrective actions.

 Performance of Authorized Inspection Agency
 audits required by ASME QAI-1 and NB-263, RCI-1
 shall be addressed in the Quality Assurance
 Manual.

t) Authorized Nuclear Inspector Measures shall be taken to reference the commissioned rules for the National Board Authorized Nuclear Inspector, in accordance with NB-263, RCI-1 Rules for Commissioned Inspectors. The Authorized Nuclear Inspector shall hold the "N", "I", and "R" endorsements on his/her Commission. The "NR" Certificate Holder shall ensure that the latest documents including the Quality Assurance Manual, procedures, and instructions, are made available to the Authorized Nuclear Inspector. The Authorized Nuclear Inspector shall be consulted prior to the issuance of a repair/replacement plan by the "NR" Certificate Holder in order that the Authorized Nuclear Inspector may select any in process inspection or hold points when performing repair/replacement activities. The "NR" Certificate Holder shall keep the Authorized Nuclear Inspector informed of progress of the repair/replacement activity so that inspections may be performed. The Authorized Nuclear Inspector shall not sign Form NR-1 or Form NVR-1, as applicable, unless satisfied that all work carried out is in accordance with this section. The Authorized Nuclear Inspector and Authorized Nuclear Inspector Supervisor shall have access to areas where work is being performed, including subcontractors facilities, in order to perform their required duties. The ANI shall be involved in dispositions and verification for nonconformances and corrective actions involving quality or code requirements. Additional requirements regarding Owner Interface are specified in 1.6.9.

1.6.78.2 QUALITY PROGRAM ELEMENTS

t) Authorized Nuclear Inspector Measures shall be taken to reference the commissioned rules for the National Board Authorized Nuclear Inspector, in accordance with NB-263, RCI-1 Rules for Commissioned Inspectors. The Authorized Nuclear Inspector shall hold the "N", "I", and "R" endorsements on his/her Commission. The "NR" Certificate Holder shall ensure that the latest documents including the Quality Assurance Manual, procedures, and instructions, are made available to the Authorized Nuclear Inspector. The Authorized Nuclear Inspector shall be consulted prior to the issuance of a repair/replacement plan by the "NR" Certificate Holder in order that the Authorized Nuclear Inspector may select any in process inspection or hold points when performing repair/replacement activities. The "NR" Certificate Holder shall keep the Authorized Nuclear Inspector informed of progress of the repair/replacement activity so that inspections may be performed. The Authorized Nuclear Inspector shall not sign Form NR-1 or Form NVR-1, as applicable, unless satisfied that all work carried out is in accordance with this section. The **Authorized Nuclear** Inspector and Authorized Nuclear Inspector Supervisor shall have access to areas where work is being performed, including subcontractors facilities, in order to perform their required duties. The ANIInspector shall be involved in dispositions and verification for nonconformances and corrective actions involving quality or code requirements. Additional requirements regarding Owner Interface are specified in 1.6.910.

1.6.7.2 QUALITY PROGRAM ELEMENTS u) Exhibits

Forms and exhibits referenced in the Quality Assurance Manual shall be explained in the text and included as part of the referencing document or as an appendix to the Quality Assurance Manual. Forms shall be controlled and identified to show the latest approved revision, name, and other corresponding references as stated in the Quality Assurance Manual.

1.6.-78.2 QUALITY PROGRAM ELEMENTS u) Exhibits

Forms and exhibits referenced in the Quality Assurance Manual shall be explained in the text and included as part of the referencing document or as an appendix to the Quality Assurance Manual. Forms shall be controlled and identified to show the latest approved revision, name, and other corresponding references as stated in the Quality Assurance Manual.

1.6.8 QUALITY ASSURANCE PROGRAM REQUIREMENTS FOR CATEGORY 3 ACTIVITIES

1.6.8.1 SCOPE

Organizations requesting a Category 3 "NR" Certificate of Authorization may elect to follow the requirements specified in ASME NQA-1 Part 1 or follow specific Quality Assurance Program requirements outlined in other specified standards as required by the owner, Regulatory Authority or Jurisdiction. Organizations shall specify in the QAM what QAP requirements are followed. When standards other than ASME NQA-1 are followed, the organization shall have available a copy of that standard for review by the NB Survey Team and the ANIA, as applicable. Each organization shall, as a minimum, include in their written QAM the specified elements listed in Category 1 and/or 2 (1.6.6, 1.6.7) QAP requirements. Additional requirements, as specified within NBIC Part 3, 1.6.8 and 1.6.9 shall be included within the QAP. Also, limitations or additions to ASME NQA-1, as specified for Category 1 or 2 may be incorporated and referenced within the QAM.

1.6.89 QUALITY ASSURANCE PROGRAM REQUIREMENTS FOR CATEGORY 3 ACTIVITIES

1.6.-89.1 SCOPE

Organizations requesting a Category 3 "NR" Certificate of Authorization may elect to follow the requirements specified in ASME NQA-1 Part 1 or follow specific Quality Assurance Program requirements outlined in other specified standards as required by the owner, Regulatory Authority or Jurisdiction. Organizations shall specify in the QAM what QAP requirements are followed. When standards other than ASME NQA-1 are followed, the organization shall have available a copy of that standard for review by the NB Survey Team and the ANIA-Authorized Inspection Agency, as applicable. Each organization shall, as a minimum, include in their written QAM the specified elements listed in Category 1 and/or 2 (1.6.67, 1.6.78) QAP requirements. Additional requirements, as specified within NBIC Part 3, 1.6.89 and 1.6.910 shall be included within the QAP. Also, limitations or additions to ASME NQA-1, as specified for Category 1 or 2 may be incorporated and referenced within the QAM.

a) Organization

The authority and responsibility for individuals involved in activities affecting quality shall be clearly established and documented throughout the Quality Assurance Program and identified on a functional organizational chart contained within the QA Manual.

1.6.—89.2 QUALITY PROGRAM ELEMENTS

a) Organization

The authority and responsibility for individuals involved in activities affecting quality shall be clearly established and documented throughout the Quality Assurance Program and identified on a functional organizational chart contained within the QA Manual.

- b) Statement of Policy and Authority shall:
- 1) identify the titles of individuals who have the authority and responsibility charged with ensuring the quality program is implemented as described;
- 2) confirm their freedom in the organization to identify quality problems and to initiate, recommend and provide solutions;
- 3) include a statement that if there is a disagreement in the implementation of the quality assurance program, the matter is to be referred for resolution to a higher authority and shall be resolved in a manner that will not conflict with code, jurisdiction/regulatory authority or quality program requirements;
- 4) include a statement of the full support of management; and
- 5) be dated and signed by a senior management official within the organization.

- b) Statement of Policy and Authority shall:
- 1) identify the titles of individuals who have the authority and responsibility charged with ensuring the quality program is implemented as described;
- 2) confirm their freedom in the organization to identify quality problems and to initiate, recommend and provide solutions;
- 3) include a statement that if there is a disagreement in the implementation of the quality assurance program, the matter is to be referred for resolution to a higher authority and shall be resolved in a manner that will not conflict with code, jurisdiction/regulatory authority or quality program requirements;
- 4) include a statement of the full support of management; and
- 5) be dated and signed by a senior management official within the organization.

1.6.8.2 QUALITY PROGRAM ELEMENTS c) QAP

The quality assurance program shall be documented by written policies, procedures and instructions. It shall account for special controls, processes, test equipment, tools and skills to obtain quality and for verification of quality by inspections and tests. Indoctrination, training and maintaining proficiency of personnel effecting quality shall be described. The status, adequacy and effectiveness of the QAP shall be regularly reviewed by management. The scope shall be included within the written QAM. The "NR" Certificate Holder shall make a current controlled copy of the Quality Assurance Manual available to the Authorized Nuclear Inspector and Authorized Nuclear Inspector Supervisor. The "NR" Certificate Holder shall address in their QAM the requirements for interfacing with the owner specified in 1.6.9 of this section. Specified controls including responsibilities for personnel shall be described in the quality assurance program.

1.6.89.2 QUALITY PROGRAM ELEMENTS c) QAP

The quality assurance program shall be documented by written policies, procedures and instructions. It shall account for special controls, processes, test equipment, tools and skills to obtain quality and for verification of quality by inspections and tests. Indoctrination, training and maintaining proficiency of personnel effecting quality shall be described. The status, adequacy and effectiveness of the QAP shall be regularly reviewed by management. The scope shall be included within the written QAM. The "NR" Certificate Holder shall make a current controlled copy of the Quality Assurance Manual available to the Authorized Nuclear Inspector and Authorized Nuclear Inspector Supervisor. The "NR" Certificate Holder shall address in their QAM the requirements for interfacing with the owner specified in 1.6.910 of this section. Specified controls including responsibilities for personnel shall be described in the quality assurance program.

d) Design Control

Established measures to assure applicable quality standards and regulatory requirements are accurately specified and translated into design documents. Any deviations shall be identified and controlled. Control measures (such as review, approval, release, distribution and revisions) for suitability of materials, parts, equipment, procedures, instructions and processes, shall be performed to ensure adherence to specified design basis requirements. Qualifications, responsibilities and certifications of design personnel shall be clearly defined within the quality assurance program.

1.6.89.2 QUALITY PROGRAM ELEMENTS

d) Design Control

Established measures to assure applicable quality standards and regulatory requirements are accurately specified and translated into design documents. Any deviations shall be identified and controlled. Control measures (such as review, approval, release, distribution and revisions) for suitability of materials, parts, equipment, procedures, instructions and processes, shall be performed to ensure adherence to specified design basis requirements. Qualifications, responsibilities and certifications of design personnel shall be clearly defined within the quality assurance program.

e) Procurement Document Control
Documents for procurement of material,
equipment and services shall ensure regulatory
requirements, design bases and other quality
requirements are included or referenced.
Procurement documents shall require contractors
or subcontractors provide a Quality Assurance
Program consistent with the provisions specified
herein. Controls necessary to ensure materials,
equipment, and services meet specified design
criteria shall be clearly described within the
quality assurance program.

1.6.89.2 QUALITY PROGRAM ELEMENTS

e) Procurement Document Control
Documents for procurement of material,
equipment and services shall ensure regulatory
requirements, design bases and other quality
requirements are included or referenced.
Procurement documents shall require contractors
or subcontractors provide a Quality Assurance
Program consistent with the provisions specified
herein. Controls necessary to ensure materials,
equipment, and services meet specified design
criteria shall be clearly described within the
quality assurance program.

f) Instructions, Procedures, and Drawings Activities affecting quality shall be accomplished in accordance with prescribed instructions, procedures or drawings and shall include appropriate quantitative or qualitative acceptance criteria to determine activities are satisfactorily accomplished.

1.6.89.2 QUALITY PROGRAM ELEMENTS

f) Instructions, Procedures, and Drawings Activities affecting quality shall be accomplished in accordance with prescribed instructions, procedures or drawings and shall include appropriate quantitative or qualitative acceptance criteria to determine activities are satisfactorily accomplished.

Existing text – NBIC Part 3 – 2023

1.6.8.2 QUALITY PROGRAM ELEMENTS

g) Document Control

Shall define measures to control the preparation, issuance, use, review approval, revisions and distribution of all documents, including procedures, instructions and drawings related to quality. Responsibilities shall be described within the quality program.

New proposed text

1.6.-89.2 QUALITY PROGRAM ELEMENTS

g) Document Control

Shall define measures to control the preparation, issuance, use, review approval, revisions and distribution of all documents, including procedures, instructions and drawings related to quality. Responsibilities shall be described within the quality program.

h) Control of Purchased, Materials, Items and Services

Purchased material, items and services shall conform to the procurement documents.

Measures shall be established for source evaluation and selection, objective evidence of quality, inspections at the source and examination of products upon delivery.

Effectiveness of quality of suppliers shall be assessed by the applicant or designee at specified intervals. Documented evidence shall be performed and made available to assure materials and services conform to procurement documents, quality procedures and instructions.

1.6.89.2 QUALITY PROGRAM ELEMENTS

h) Control of Purchased, Materials, Items and Services

Purchased material, items and services shall conform to the procurement documents.

Measures shall be established for source evaluation and selection, objective evidence of quality, inspections at the source and examination of products upon delivery.

Effectiveness of quality of suppliers shall be assessed by the applicant or designee at specified intervals. Documented evidence shall be performed and made available to assure materials and services conform to procurement documents, quality procedures and instructions.

i) Identification and Control of Items
Specified controls shall ensure only correct and
acceptable items, parts and components are used
and installed and traceable to required
documents such as certified material test reports,
certificates of conformance, or data reports.
These controls shall include traceability on the
items or on records traceable to the items during
fabrication and final acceptance and test.

1.6. 89.2 QUALITY PROGRAM ELEMENTS

i) Identification and Control of Items
Specified controls shall ensure only correct and
acceptable items, parts and components are used
and installed and traceable to required
documents such as certified material test reports,
certificates of conformance, or data reports.
These controls shall include traceability on the
items or on records traceable to the items during
fabrication and final acceptance and test.

i) Control of Processes

Documents used to control processes shall be prepared, including the document numbers and revision to which the process conforms and shall include space for providing reporting of results of specific operations at checkpoints of repair/replacement activity, and provide spaces for signatures, initials, stamps and dates for activities performed by the Certificate Holders's representative and the Authorized Nuclear Inspector. Special processes including welding, nondestructive examinations, heat treating, and bending are performed using qualified and approved procedures and qualified personnel in accordance with applicable codes, standards and other specified criteria.

1.6.-89.2 QUALITY PROGRAM ELEMENTS

j) Control of Processes

Documents used to control processes shall be prepared, including the document numbers and revision to which the process conforms and shall include space for providing reporting of results of specific operations at checkpoints of repair/replacement activity, and provide spaces for signatures, initials, stamps and dates for activities performed by the Certificate Holders's representative and the Authorized Nuclear Inspector. Special processes including welding, nondestructive examinations, heat treating, and bending are performed using qualified and approved procedures and qualified personnel in accordance with applicable codes, standards and other specified criteria.

New proposed text

1.6.8.2 QUALITY PROGRAM ELEMENTS

- k) Examinations, Tests, and Inspections A repair / replacement plan, developed in accordance with Table 1.6.9, shall address all required information for performing examinations, tests and inspections including but not limited to:
- 1) Establishing hold points;
- 2) Identifying procedures, methods, acceptance criteria:
- 3) Defects identified, removal methods, welding, brazing, fusing, and material requirements, reference points used for identification; and
- 4) Evaluations of results Examinations, tests and inspections shall be performed using trained and qualified personnel. Personnel records for qualification and training shall be available for review.

1.6.89.2 QUALITY PROGRAM ELEMENTS

- k) Examinations, Tests, and Inspections A repair / replacement plan, developed in accordance with Table 1.6.910, shall address all required information for performing examinations, tests and inspections including but not limited to:
- 1) Establishing hold points;
- 2) Identifying procedures, methods, acceptance criteria:
- 3) Defects identified, removal methods, welding, brazing, fusing, and material requirements, reference points used for identification; and
- 4) Evaluations of results Examinations, tests and inspections shall be performed using trained and qualified personnel. Personnel records for qualification and training shall be available for review.

1.6.8.2 QUALITY PROGRAM ELEMENTSI) Test Control

Tests shall be performed using written procedures identifying prerequisites, acceptance limits, calibration, equipment, personnel qualifications, environmental conditions, and required documentation. Personnel responsibilities shall be described for performance, acceptance/inspection and documenting results.

1.6.-89.2 QUALITY PROGRAM ELEMENTS I) Test Control

Tests shall be performed using written procedures identifying prerequisites, acceptance limits, calibration, equipment, personnel qualifications, environmental conditions, and required documentation. Personnel responsibilities shall be described for performance, acceptance/inspection and documenting results.

- m) Control of Measuring and Test Equipment
 The "NR" Certificate Holder may utilize calibration
 and test activities performed by subcontractors
 when surveys and audits are performed. As an
 alternative to performing a survey and audit for
 procuring Laboratory Calibration and Test
 Services, the "NR" Certificate Holder as
 documented in their Quality Program may accept
 accreditation of an International Calibration and
 Test Laboratory Services by the International
 Laboratory Accreditation Cooperation (ILAC)
 Mutual Recognition Arrangement (MRA)
 provided this alternative method is described in
 the "NR" Certificate Holder's Quality Program and
 the following requirements are met:
- 1) The "NR" Certificate Holder shall review and document verification that the supplier of calibration or test services was accredited by an accredited body recognized by the ILAC MRA encompassing ISO/IEC-17025:2005 or 2017, "General Requirements for the Competence of Testing and Calibration Laboratories";
- 2) For procurement of calibration services, the published scope of accreditation for the calibration laboratory covers the needed measurement parameters, ranges and uncertainties;
- 3) For procurement of testing services, the published scope of accreditation for the test laboratory covers the needed testing services including test methodology and tolerances/uncertainty;
- 4) The "NR" Certificate Holder's purchase documents shall include:
- a. Service provided shall be in accordance with their accredited ISO/IEC-17025:2005 or 2017 program and scope of accreditation;
- b. As-found calibration data shall be reported in the certificate of calibration when items are found to be out-of-calibration;
- c. Standards used to perform calibration shall be identified in the certificate of calibration;
- d. Notification of any condition that adversely impacts the laboratories ability to maintain the scope of accreditation;

1.6.89.2 QUALITY PROGRAM ELEMENTS

- m) Control of Measuring and Test Equipment
 The "NR" Certificate Holder may utilize calibration
 and test activities performed by subcontractors
 when surveys and audits are performed. As an
 alternative to performing a survey and audit for
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 Services, the "NR" Certificate Holder as
 documented in their Quality Program may accept
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 Test Laboratory Services by the International
 Laboratory Accreditation Cooperation (ILAC)
 Mutual Recognition Arrangement (MRA)
 provided this alternative method is described in
 the "NR" Certificate Holder's Quality Program and
 the following requirements are met:
- 1) The "NR" Certificate Holder shall review and document verification that the supplier of calibration or test services was accredited by an accredited body recognized by the ILAC MRA encompassing ISO/IEC-17025:2005 or 2017, "General Requirements for the Competence of Testing and Calibration Laboratories";
- 2) For procurement of calibration services, the published scope of accreditation for the calibration laboratory covers the needed measurement parameters, ranges and uncertainties;
- 3) For procurement of testing services, the published scope of accreditation for the test laboratory covers the needed testing services including test methodology and tolerances/uncertainty;
- 4) The "NR" Certificate Holder's purchase documents shall include:
- a. Service provided shall be in accordance with their accredited ISO/IEC-17025:2005 or 2017 program and scope of accreditation;
- b. As-found calibration data shall be reported in the certificate of calibration when items are found to be out-of-calibration;
- c. Standards used to perform calibration shall be identified in the certificate of calibration;
- d. Notification of any condition that adversely impacts the laboratories ability to maintain the scope of accreditation;

- e. Any additional technical and/or quality requirements, as necessary, which may include tolerances, accuracies, ranges, and standards; and
- f. Service suppliers shall not subcontract services to any other supplier.
- 5) The "NR" Certificate Holder shall upon receipt inspection, validate that the laboratory documentation certifies that:
- a. Services provided by the laboratory has been performed in accordance with their ISO/IEC-17025:2005 or 2017 program and performed within their scope; and
- b. Purchase order requirements have been met.

- e. Any additional technical and/or quality requirements, as necessary, which may include tolerances, accuracies, ranges, and standards; and
- f. Service suppliers shall not subcontract services to any other supplier.
- 5) The "NR" Certificate Holder shall upon receipt inspection, validate that the laboratory documentation certifies that:
- a. Services provided by the laboratory has been performed in accordance with their ISO/IEC-17025:2005 or 2017 program and performed within their scope; and
- b. Purchase order requirements have been met.

Existing text – NBIC Part 3 – 2023

1.6.8.2 QUALITY PROGRAM ELEMENTS

n) Handling, Storage, and Shipping Processes or procedures shall be established to prevent damage, deterioration or misuse of material, items or components used and stored. Controls for handling, shipping, storage, cleanliness and preservation shall be specified in the quality program.

New proposed text

1.6.-89.2 QUALITY PROGRAM ELEMENTS

n) Handling, Storage, and Shipping

Processes or procedures shall be established to
prevent damage, deterioration or misuse of
material, items or components used and stored.

Controls for handling, shipping, storage,
cleanliness and preservation shall be specified in
the quality program.

- o) Records
- 1) All quality related records shall be classified, identified, verified, maintained, distributed retrievable, and accessible. When the "NR" Certificate Holder is the owner, designated records and reports received by the owner, shall be filed and maintained in a manner to allow access by the Authorized Nuclear Inservice Inspector (ANII). Suitable protection from deterioration and damage shall be provided by the owner. These records and reports shall be retained as specified in the owner's QAP for the lifetime of the component or system. Records to support evidence of activities affecting quality shall include as applicable:
- a. Inspections and acceptance criteria/results;
- b. Tests performed and supporting reports;
- c. Procedures/instructions;
- d. Qualification of personnel, procedures, and equipment;
- e. Types of observations and results;
- f. Audits;
- g. Nonconformances; and
- h. Corrective actions.
- 2) The original of the completed Form NR-1 or Form NVR-1, as applicable, shall be registered with the National Board and, if required, a copy forwarded to the Jurisdiction where the nuclear power plant is located. A log shall be maintained in accordance with NBIC Part 3, 5.6.

1.6.89.2 QUALITY PROGRAM ELEMENTS

- o) Records
- 1) All quality related records shall be classified, identified, verified, maintained, distributed retrievable, and accessible. When the "NR" Certificate Holder is the owner, designated records and reports received by the owner, shall be filed and maintained in a manner to allow access by the Authorized Nuclear Inservice Inspector (ANII). Suitable protection from deterioration and damage shall be provided by the owner. These records and reports shall be retained as specified in the owner's QAP for the lifetime of the component or system. Records to support evidence of activities affecting quality shall include as applicable:
- a. Inspections and acceptance criteria/results;
- b. Tests performed and supporting reports;
- c. Procedures/instructions;
- d. Qualification of personnel, procedures, and equipment;
- e. Types of observations and results;
- f. Audits;
- g. Nonconformances; and
- h. Corrective actions.
- 2) The original of the completed Form NR-1 or Form NVR-1, as applicable, shall be registered with the National Board and, if required, a copy forwarded to the Jurisdiction where the nuclear power plant is located. A log shall be maintained in accordance with NBIC Part 3, 5.6.

- p) Corrective Action
- 1) Measures shall be established to ensure that conditions adverse to quality such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and other nonconformances are promptly identified and corrected.
- 2) In the case of significant conditions adverse to quality, the measures shall also ensure that the cause of these conditions be determined and corrected to preclude repetition. The identification of significant conditions adverse to quality, the cause, condition, and the corrective action taken shall be documented and reported to the appropriate levels of management.
- 3) Corrective action requirements shall also extend to the performance of subcontractors' activities.

1.6.89.2 QUALITY PROGRAM ELEMENTS

- p) Corrective Action
- 1) Measures shall be established to ensure that conditions adverse to quality such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and other nonconformances are promptly identified and corrected.
- 2) In the case of significant conditions adverse to quality, the measures shall also ensure that the cause of these conditions be determined and corrected to preclude repetition. The identification of significant conditions adverse to quality, the cause, condition, and the corrective action taken shall be documented and reported to the appropriate levels of management.
- 3) Corrective action requirements shall also extend to the performance of subcontractors' activities.

Existing text – NBIC Part 3 – 2023

1.6.8.2 QUALITY PROGRAM ELEMENTS

q) Inspection or Test Status

Measures shall be established to indicate inspection and test status of parts, items or components during repair/replacement activity. Measures shall include identification, procedures, control indicators (acceptable, unacceptable) and responsibility of personnel.

New proposed text

1.6.89.2 QUALITY PROGRAM ELEMENTS

q) Inspection or Test Status Measures shall be established to indicate

inspection and test status of parts, items or components during repair/replacement activity. Measures shall include identification, procedures, control indicators (acceptable, unacceptable) and responsibility of personnel.

r) Nonconforming Material or Items
Measures to control material or items,
nonconforming to specified criteria shall be
established. Measures shall include identifying,
controlling, documenting, reviewing, verifying,
dispositioning and segregation when practical.

1.6.89.2 QUALITY PROGRAM ELEMENTS

r) Nonconforming Material or Items
Measures to control material or items,
nonconforming to specified criteria shall be
established. Measures shall include identifying,
controlling, documenting, reviewing, verifying,
dispositioning and segregation when practical.

s) Audits

A comprehensive system of planned and periodic audits of the "NR" Certificate Holder's Quality Assurance Program shall be performed. Audit frequency shall be specified in the organization's Quality Assurance Manual. Audits shall be conducted at least annually (within 12 months) to verify compliance with Quality Assurance Program requirements, performance criteria and to determine the effectiveness of the Quality Assurance Program. When no code work has been performed, the required annual audit need only include those areas of responsibility required to be continually maintained such as training, audits, organizational structure, Quality Assurance Program revisions, etc. The Quality Assurance Manual shall as a minimum describe the following:

- 1) Audits shall be performed in accordance with written procedures or checklists by qualified audit personnel not having direct responsibility in areas being audited;
- 2) Audit personnel shall be qualified in accordance with recognized standards, such as NQA-1;
- 3) Audit results shall be documented and reviewed by responsible management for adequacy and effectiveness of the quality assurance program;
- 4) Requirements for follow-up actions for any deficiencies noted during the audit;
- 5) Audit records and applicable documentation shall be made available to the Authorized Nuclear Inspection Agency for review;
- 6) Audit records shall include as a minimum:
- a. written procedures;
- b. checklists;
- c. reports;
- d. written replies; and
- e. completion of corrective actions.

Performance of Authorized Inspection Agency audits required by ASME QAI-1 and NB-263, RCI-1 shall be addressed in the Quality Assurance Manual.

1.6.89.2 QUALITY PROGRAM ELEMENTS s) Audits

A comprehensive system of planned and periodic audits of the "NR" Certificate Holder's Quality Assurance Program shall be performed. Audit frequency shall be specified in the organization's Quality Assurance Manual. Audits shall be conducted at least annually (within 12 months) to verify compliance with Quality Assurance Program requirements, performance criteria and to determine the effectiveness of the Quality Assurance Program. When no code work has been performed, the required annual audit need only include those areas of responsibility required to be continually maintained such as training, audits, organizational structure, Quality Assurance Program revisions, etc. The Quality Assurance Manual shall as a minimum describe the following:

- 1) Audits shall be performed in accordance with written procedures or checklists by qualified audit personnel not having direct responsibility in areas being audited;
- 2) Audit personnel shall be qualified in accordance with recognized standards, such as NQA-1;
- 3) Audit results shall be documented and reviewed by responsible management for adequacy and effectiveness of the quality assurance program;
- 4) Requirements for follow-up actions for any deficiencies noted during the audit;
- 5) Audit records and applicable documentation shall be made available to the Authorized Nuclear Inspection Agency for review;
- 6) Audit records shall include as a minimum:
- a. written procedures;
- b. checklists;
- c. reports;
- d. written replies; and
- e. completion of corrective actions.

Performance of Authorized Inspection Agency audits required by ASME QAI-1 and NB-263, RCI-1 shall be addressed in the Quality Assurance Manual.

t) Authorized Nuclear Inspector Measures shall be taken to reference the commissioned rules for the National Board Authorized Nuclear Inspector, in accordance with NB-263, RCI-1 Rules for Commissioned Inspectors. The Authorized Nuclear Inspector shall hold the "N", "I", and "R" endorsements on his/her Commission. The "NR" Certificate Holder shall ensure that the latest documents, including the Quality Assurance Manual, procedures, and instructions, are made available to the Authorized Nuclear Inspector. The Authorized Nuclear Inspector shall be consulted prior to the issuance of a repair/replacement plan by the "NR" Certificate Holder in order that the Authorized Nuclear Inspector may select any in process inspection or hold points when performing repair/replacement activities. The "NR" Certificate Holder shall keep the Authorized Nuclear Inspector informed of progress of the repair/replacement activity so that inspections may be performed. The Authorized Nuclear Inspector shall not sign Form NR-1 or Form NVR-1, as applicable, unless satisfied that all work carried out is in accordance with this section. The Authorized Nuclear Inspector and Authorized Nuclear Inspector Supervisor shall have access to areas where work is being performed, including subcontractors, facilities, in order to perform their required duties. The ANI shall be involved in dispositions and verification for nonconformances and corrective actions involving quality or code requirements. Additional requirements regarding Owner Interface are specified in 1.6.9.

1.6. 89.2 QUALITY PROGRAM ELEMENTS

t) Authorized Nuclear Inspector Measures shall be taken to reference the commissioned rules for the National Board Authorized Nuclear Inspector, in accordance with NB-263, RCI-1 Rules for Commissioned Inspectors. The Authorized Nuclear Inspector shall hold the "N", "I", and "R" endorsements on his/her Commission. The "NR" Certificate Holder shall ensure that the latest documents, including the Quality Assurance Manual, procedures, and instructions, are made available to the Authorized **Nuclear** Inspector. The Authorized Nuclear Inspector shall be consulted prior to the issuance of a repair/replacement plan by the "NR" Certificate Holder in order that the Authorized Nuclear Inspector may select any in process inspection or hold points when performing repair/replacement activities. The "NR" Certificate Holder shall keep the Authorized Nuclear Inspector informed of progress of the repair/replacement activity so that inspections may be performed. The Authorized Nuclear Inspector shall not sign Form NR-1 or Form NVR-1, as applicable, unless satisfied that all work carried out is in accordance with this section. The **Authorized Nuclear** Inspector and Authorized Nuclear Inspector Supervisor shall have access to areas where work is being performed, including subcontractors, facilities, in order to perform their required duties. The ANI Inspector shall be involved in dispositions and verification for nonconformances and corrective actions involving quality or code requirements. Additional requirements regarding Owner Interface are specified in 1.6.910.

1.6.8.2 QUALITY PROGRAM ELEMENTS u) Exhibits

Quality related forms and exhibits described in the Quality Assurance Program shall be identified, controlled and where applicable included as a reference document within the QAM or referenced procedures.

1.6.-89.2 QUALITY PROGRAM ELEMENTS u) Exhibits

Quality related forms and exhibits described in the Quality Assurance Program shall be identified, controlled and where applicable included as a reference document within the QAM or referenced procedures.

1.6.9 INTERFACE WITH THE OWNER'S REPAIR/REPLACEMENT PROGRAM (FOR CATEGORIES 1, 2, AND 3 AS APPLICABLE)

Interface with the owner's repair/replacement program shall meet the following:

- a) The "NR" Certificate Holder's repair/replacement plan (see Table 1.6.9) shall be subject to the acceptance of the owner and the owner's Authorized Nuclear Inservice Inspector (ANII) and shall be subject to review by the Jurisdiction and Regulatory Authorities having jurisdiction at the plant site.
- b) Repair/Replacement activities of nuclear components shall meet the requirements of ASME Section III, ASME Section XI Division I, and/or other applicable standard, and the owner's requirements, and shall be subject to verification by the Jurisdiction and Regulatory Authorities having jurisdiction at the plant site. c) Documentation of the repair/replacement activities of nuclear components shall be recorded on the Report of Repair/Replacement Activities of Nuclear Components and Systems for Nuclear Facilities, Form NR-1, or Report of Repair/Replacement Activities for Nuclear Pressure Relief Devices, Form NVR-1, in accordance with the NBIC Part 3, Section 5. The completed forms shall be signed by a representative of the "NR" Certificate Holder and the Authorized Nuclear Inspector when the repair/replacement activity meets the requirements of this section. For repair/replacement activities that involve design changes, Form NR-1, or Form NVR-1, as applicable, shall indicate the organization responsible for the design or design reconciliation in accordance with the owner's requirements. d) The "NR" Certificate Holder shall provide a copy of the signed Form NR-1 or Form NVR-1, as applicable, to the owner, the Enforcement, and

the Regulatory Authority if required, and the

original Form NR-1 or Form NVR-1, as applicable,

shall be registered with the National Board by the

"NR" Certificate Holder. A NB registration log shall

Authorized Nuclear Inspection Agency. The

1.6.9 INTERFACE WITH THE OWNER'S REPAIR/REPLACEMENT PROGRAM (FOR CATEGORIES 1, 2, AND 3 AS APPLICABLE)

Interface with the owner's repair/replacement program shall meet the following:

- a) The "NR" Certificate Holder's repair/replacement plan (see Table 1.6.910) shall be subject to the acceptance of the owner and the owner's Authorized Nuclear Inservice Inspector (ANII) and shall be subject to review by the Jurisdiction and Regulatory Authorities having jurisdiction at the plant site.
- b) Repair/Replacement activities of nuclear components shall meet the requirements of ASME Section III, ASME Section XI Division I, and/or other applicable standard, and the owner's requirements, and shall be subject to verification by the Jurisdiction and Regulatory Authorities having jurisdiction at the plant site. c) Documentation of the repair/replacement activities of nuclear components shall be recorded on the Report of Repair/Replacement Activities of Nuclear Components and Systems for Nuclear Facilities, Form NR-1, or Report of Repair/Replacement Activities for Nuclear Pressure Relief Devices, Form NVR-1, in accordance with the NBIC Part 3, Section 5. The completed forms shall be signed by a representative of the "NR" Certificate Holder and the Authorized Nuclear Inspector when the repair/replacement activity meets the requirements of this section. For repair/replacement activities that involve design changes, Form NR-1, or Form NVR-1, as applicable, shall indicate the organization responsible for the design or design reconciliation in accordance with the owner's requirements. d) The "NR" Certificate Holder shall provide a copy of the signed Form NR-1 or Form NVR-1, as applicable, to the owner, the Enforcement, and the Regulatory Authority if required, and the Authorized Nuclear Inspection Agency. The original Form NR-1 or Form NVR-1, as applicable, shall be registered with the National Board by the "NR" Certificate Holder. A NB registration log shall

be maintained by the "NR" Certificate Holder. See NBIC Part 3, Section 5.5 and 5.6.

e) The "NR"Certificate Holder shall provide a nameplate/stamping for repair/replacement activities for each nuclear component unless otherwise specified by the owner's Quality Assurance Program. The required information and format shall be as shown in NBIC Part 3, Section 5.

be maintained by the "NR" Certificate Holder. See NBIC Part 3, Section 5.5 and 5.6.

e) The "NR"Certificate Holder shall provide a nameplate/stamping for repair/replacement activities for each nuclear component unless otherwise specified by the owner's Quality Assurance Program. The required information and format shall be as shown in NBIC Part 3, Section 5.

TABLE 1.6.9 1.6.10 REPAIR/REPLACEMENT PLAN CRITERIA

	Essential Requirements	Instruction
Α	Edition and/or addenda of codes	Including codes of construction, code cases, or standards used for the work performed, the NBIC Code edition, and the owner's requirements.
В	Identification of items	Description of items affected by the repair/replacement activity, including serial numbers, vendor identification, and code classes if applicable.
	Remo	Location of installation if applicable.
		Description of any defects, and nondestructive examination methods used to detect the defects
	Performance of the	Defect removal method, measurement, and area identification/reference points.
С	Repair/Replacement activity	Applicable welding/brazing procedures, heat treatment, nondestructive examination, and tests.
		Final examination criteria to verify acceptability.
	·	Preservice examination criteria if applicable.
D	Materials	Original specifications, new material specifications, including heat numbers, code edition/class and reconciliation requirements if applicable.
E	Description of Repair/Replacement activity	Include expected life of the item after completion if different from the original intended life as specified by the design specification. Application of the "NR" code symbol stamp if required.
_	Barranatation	Generated as required by the quality assurance program and/or the owner's requirements.
F	Documentation	Retention and submittal in accordance with the quality assurance program and/or the owner's requirements.
G	Evaluations/ Acceptance	Evaluations/acceptance by the jurisdictional/regulatory authority as applicable.
		Post repair/replacement testing criteria.
н	Testing	Test acceptance criteria to verify acceptability.
	·	Types (pneumatic, hydrostatic, system leakage, or other).
1	Design	When applicable, design documents shall be certified by qualified/certified engineer.
J	Authorized	Authorized Nuclear Inspector review/acceptance.
J	Inspection Agency	Authorized Nuclear Inservice Inspector review/acceptance.
K	Responsibilities for review, verification, and acceptance	Design, quality, work performed, examination/test, and records.
		Owner acceptance of the repair/replacement plan.

\$9.6 FORM NR-1, REPORT OF REPAIR/REPLACEMENT ACTIVITIES FOR NUCLEAR FACILITIES, NB-81

FIGURE \$9.6.1 FORM NR-1, PAGE 1 OF 3 No changes to this page. Page attached for reference only!

THE MATERIAL BOARD	ND D
TUT OF BOLLES AND PRODUCE WORKS. INSPECTORS	NB-81, Rev. 8, (03/04/21)
FORM NR-1, REPORT OF REPAIR/REPLACEMENT ACTIVITIES FOR NUCLEAR	R FACILITIES
	2
CATEGORY OF ACTIVITY: 1 2 3 5	(NR form Registration No.) (3)
REPAIR/REPLACEMENT RE-RATING	(R/R Plan No., Job No., etc.)
WORK PERFORMED BY:	
(name of "NR" certificate holder)	
(address)	
2. OWNER: 4	
(name)	
(address)	
NAME, ADDRESS, AND IDENTIFICATION OF NUCLEAR FACILITY: (5)	
(name)	
(address)	
(unit identification)	
4. SYSTEM/COMPONENT: 6 ORIGINAL DESIGN SPECIFICATION NO./REV: 7)
5. CONSTRUCTION CODE, SECTION & EDITION/ADDENDA AND APPLICABLE CODE CASES USED FOR THE SYSTEM OR (8)	COMPONENT:
NBIC EDITION USED FOR PERFORMING REPAIRS/REPLACEMENT OR RE-RATING ACTIVITY:	
7. DESIGN RESPONSIBILITY: CODE and ED/AD:	
8. TESTS CONDUCTED: Hydrostatic Pneumatic System Leakage Pressure 1 Other Other	psi (MPa)
NUMBER OF COMPONENTS REPAIRED/REPLACED AND/OR RE-RATED (refer to page 2):	
DESCRIPTION OF WORK (use of property identified additional sheet(s) or sketch[es] is acceptable):	
11. REMARKS: US	
This form may be obtained from The National Board of Boiler and Pressure Vessel Inspectors + 1055 Crupper Avenue, Columbus, Ohio 43229-1183	Page 1 of 3

FIGURE \$9.6.2 FORM NR-1, PAGE 2 OF 3

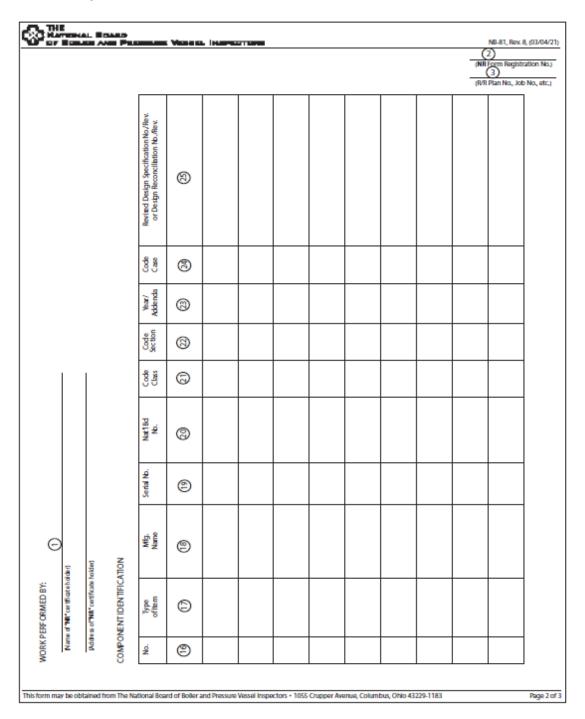


FIGURE \$9.6.3 FORM NR-1, PAGE 3 OF 3

No changes to this page. Page attached for reference only!

THE CONTROL BOARD OF BUILDING WINDOW, IMPROVED THE	NB-81, Rev. 8, (03/04/21)
	(NR Form Registration No.)
	(R/R Plan No., Job No., etc.)
CERTIFICATE OF COMPLIANCE	
I,	
National Board Certificate of Authorization No.	
Signed: 31 Date: 32	
Title: 33 (authorized representative)	
CERTIFICATE OF INSPECTION	
I, 4 , holding a valid commission issued by the National Board of Boiler	and Pressure Vessel
Inspectors and certificate of competency, where required, issued by the Jurisdiction of	and employed nent and/or re-rating
activities described in this report on and state that to the best of my knowledge have been completed in accordance with the Code specified and the National Board Inspection Code "NR" rules.	and belief, these activities
By signing this certificate, neither the undersigned nor my employer makes any warranty, expressed or implied, cor	
described in this report. Furthermore, neither the undersigned nor my employer shall be liable in any manner for at property damage, or loss of any kind arising from or connected with this inspection.	ny personal injury,
Signed: 39 Commissions 40 (National Board and endorsement)	
(in adjace and)	
This form may be obtained from The National Board of Boller and Pressure Vessel Inspectors + 1055 Crupper Avenue, Columbus, Ohio 43229-1183	Page 3 of 3

TABLE \$9.6

GUIDE FOR COMPLETING FORM NR-1, REPORT OF REPAIR/REPLACEMENT ACTIVITIES FOR NUCLEAR FACILITIES, NB-81 $\,$

Reference to Circled Numbers in the Form	Description				
Title Block: Check type of activity, repair/replacement and/or rerating, as applicable.					
Check ca	ategory of activity, 1, 2, or 3, as described in Part 3, Paragraph 1.6.2.				
(1)	Name and address of the organization, as shown on the National Board "NR" Certificate of Authorization, which performed the activity.				
(2)	Indicate NR Form Registration Number.				
(3)	Indicate the repair/replacement plan, job number, etc., as applicable, assigned by the organization that performed the work for traceability to documentation.				
(4)	Name and address of the owner of the nuclear facility.				
(5)	Name and address of the nuclear power plant and, if applicable, identification of the unit.				
(6)	Identify the system or component (e.g., residual heat removal, reactor coolant) with which the repair/replacement and/or re-rating activity is associated.				
(7)	Identify the original design specification number and revision for the system or component listed in line 4.				
(8)	Identify the original construction code, section, edition/addenda and applicable code cases used for the system or component identified in line 4.				
(9)	NBIC Edition used for performing activities specified on this form.				
(10)	Organization having responsibility for design when there is a change from the original design specification.				
(11)	Identify code, section, edition/addenda and applicable code cases used for design, when applicable.				
(12)	Check the type of test conducted (e.g., hydrostatic, pneumatic, system leakage, exempt, or other) and indicate the pressure applied when applicable.				
(13)	Indicate the number of components where work was performed. Each component shall be indicated on page 2 of the form NR-1.				
(14)	Provide a detailed summary describing the scope of work completed. Information to be considered should include type of work (welding, brazing, fusing), location, steps taken for removal or acceptance of defects, examinations, testing, heat treat, and other special processes or methods utilized. If Necessary, attach additional data, sketch, drawing, Form R-4, etc. In the remarks section state if additional data is attached.				
(15)	Indicate any additional information pertaining to the work, including manufacturer's data reports.				

TABLE \$9.6 CONT'D

Reference to Circled Numbers in the Form	Description
(16)	Number in sequence beginning with No. 1 to identify each component work was per- formed. This number may be used to correspond with the detailed description of work performed.
(17)	Identify the type of item. i.e. piping, pump, valve, etc.
(18)	Identify the manufacturer's name of component.
(19)	Identify the manufacturer's serial no. or other assigned number for traceability.
(20)	Identify the National Board registration number, if previously assigned.
(21)	Identify the code class criteria, as assigned for each component.
(22)	Identify the code section used to perform work.
(23)	Identify Code section year and/or addenda used to perform work.
(24)	Identify any code cases used for work performed.
(25)	Identify any revisions to be made to the design specifications or if any design reconcili- ations were performed.
(26)	Type or print name of authorized representative from the certificate holder.
(27)	Name of the organization that performed the identified work, using the full name as shown on the Certificate of Authorization, or an abbreviation acceptable to the National Board.
(28)	Indicate code section as applicable to the repair/replacement activity and/or re-rating activity performed.
(29)	Indicate National Board Certificate of Authorization number.
(30)	Indicate month, day, and year the certificate expires.
(31)	Signature of authorized representative from the NR certificate holder.
(32)	Indicate month, day and year of signature by the Authorized Representative.
(33)	Title of authorized representative as defined in the Quality Program.
(34)	Type or print name of Authorized Nuclear Inspector.
(35)	Indicate the Jurisdiction where the activity is performed, when required.
(36)	Indicate Authorized Nuclear Inspector's employer.
(37)	Indicate month, day, and year of inspection by the Authorized Nuclear Inspector.

TABLE \$9.6 CONT'D

Reference to Circled Numbers in the Form	Description				
(38)	Signature of Authorized Nuclear Inspector.				
(39)	Indicate month, day, and year of signature by the Authorized Nuclear Inspector.				
(40)	National Board Commission number and required endorsements.				

\$9.7 FORM NVR-1, REPORT OF REPAIR/REPLACEMENT ACTIVITIES FOR NUCLEAR PRESSURE RELIEF DEVICES, NB-160

FIGURE \$9.7.1 FORM NVR-1, PAGE 1 OF 3

No changes to this page. Page attached for reference only!

OF BOLLO AND PRODUCE WORD, IMPROVED	NB-160, Rev. 8, (03/30/17)
FORM NVR-1, REPORT OF REPAIR/REPLACEMENT ACTIVITIES FO	OR ②
CATEGORY OF ACTIVITY: 1 2 3 5	(NVR Form Registration No.)
□ REPAIR/REPLACEMENT □ RE-RATING	(R/R Plan No., Job No., etc.)
WORK PERFORMED BY:	
(address) 2. WORK PERFORMED FOR: 4 (name)	
(address) 3. OWNER:	
(address) 4. NAME, ADDRESS, AND IDENTIFICATION OF NUCLEAR FACILITY:	
(uddress)/(unit identification)	
5. CODE APPLICABLE FOR INSERVICE INSPECTION: (edition) (addenda) (code	de case(s))
6. CODE USED FOR REPAIR/REPLACEMENT ACTIVITY: (8) (edition) (addenda) (co	ode case(s))
7. NBIC USED FOR REPAIR/REPLACEMENT ACTIVITY: (edition)	
8. DESIGN RESPONSIBILITY: 10	
9. REPAIRED PRESSURE RELIEF DEVICE: SEE PAGE 2	
10. OPENING PRESSURE: BLOWDOWN (if applicable):	
11. SET PRESSURE AND BLOWDOWN ADJUSTMENT MADE AT: 13 USING: 4	
DESCRIPTION OF WORK: (Include name and Identifying number of replacement parts): (13)	
12. REMARKS:	
This form may be obtained from The National Board of Boiler and Pressure Vessel Inspectors * 1055 Crupper Avenue, Columbus, Ohio 43229-1183	Page 1 of 3

		lo. Service Size Year Built	® ® ®		Code Case(s)	8		Serial Number/Traceability No.	3			
		Nat1Bd No.	8		Addenda	8						
		Mfg Sedal No.	(2)		Edition	8		Quantity	(6)			
		lype	(2)		Chss	®	NUMBER OF REPLACE MENT PARTS	Part Number	@			
(Adhes of N Poerficateholder)	PRESSURE PELLEF DE MICE	Name of Mfg.	(D)	CONSTRUCTION CODE	Section	8	NAMEAND IDENTIFYING NUMBER	Part Name	@			

FIGURE \$9.7.3 FORM NVR-1, PAGE 3 OF 3

No changes to this page. Page attached for reference only!

C HATTONIAL BOARD For Bosson Ann Processes Work	o. Herenium		NB-160, Rev. 8, (03/30/1
			(form "NVR" registration in
			(R/R Plan No., Job No., etc.
	CERTIFICATE OF COMPLIA	INCE	
orrect and the repair/replacement of the predational Board Inspection Code "VR" & "NR" ru			ents made in this report are and the
lational Board Certificate of Authorization No lational Board Certificate of Authorization No late (39) Signed		to use the "VR" stam	np expires 36 np expires 38
	CERTIFICATE OF INSPECT	TON	
(2) hspectors and certificate of competency, who have inspected the repair/replacement descr	of _	on of (43) (45)	ler and Pressure Vessel and employed by
nowledge and belief, this repair/replacemer			
y signing this certificate, neither the unders			
ersonal injury, property damage, or loss of a	rmore, neither the undersigned nor n any kind arising from or connected w (48)		
ersonal injury, property damage, or loss of a igned 47 Date		vith this inspection.	
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personal injury, property damage, or loss of a pigned 47 Date Date		vith this inspection.	

TABLE \$9.7

GUIDE FOR COMPLETING FORM NVR-1, REPORT OF REPAIR/REPLACEMENT ACTIVITIES FOR NUCLEAR PRESSURE RELIEF DEVICES, NB-160

Reference to Circled Numbers in the Form	Description				
Title Bloc	ck: Check type of activity, repair/replacement and/or rerating, as applicable.				
Check ca	ategory of activity, 1, 2, or 3, as described in Part 3, Paragraph 1.6.2.				
(1)	Name and address of the organization, as shown on the National Board "VR" and "NR" Certificates of Authorization, which performed the activity.				
(2)	Indicate NVR Form Registration Number.				
(3)	Indicate the repair/replacement plan number, job number, etc., as applicable for trace- ability, assigned by the organization that performed the work.				
(4)	Name and address of the organization for which the work was performed.				
(5)	Name and address of the owner nuclear facility.				
(6)	Name and address of the nuclear facility and, if applicable, identification of the unit.				
(7)	Identify the edition, addenda, and as applicable, code cases of the code used for the inservice inspection activity.				
(8)	Identify the edition, addenda, and as applicable, code cases of the code used for the repair/replacement activity.				
(9)	Identify the NBIC edition used for the repair/replacement activity.				
(10)	Identify the organization responsible for design or design reconciliation, if applicable.				
(11)	Indicate the set pressure of the valve.				
(12)	Indicate the blowdown, if applicable, as a percentage of set pressure.				
(13)	Indicate the location of testing.				
(14)	Indicate medium (steam, air, etc.) used for the adjustment of the set pressure and, if applicable, blowdown.				
(15)	Provide a detailed summary describing the scope of work completed. Information to be considered should include type of work (welding, brazing, fusing), location, steps taken for removal or acceptance of defects, examinations, testing, heat treat, and other special processes or methods utilized. If Necessary, attach additional data, sketch, drawing, Form R-4, etc. If additional data is attached, so state in the remarks section.				
(16)	Indicate any additional information pertaining to the work, such as, additional documentation that is attached to this form to further support item 15.				
(17)	Manufacturer's name of the affected item.				

TABLE \$9.7 CONT'D

Reference to Circled Numbers in the Form	Description					
(18)	Describe the type of pressure relief device (e.g., safety valve, safety relief valve, pressure relief valve).					
(19)	Manufacturer's serial number of the affected item.					
(20)	National Board number, if applicable, of the affected item.					
(21)	Indicate the service as steam, liquid, air/gas, etc.					
(22)	Indicate the pressure relief device by inlet size, in inches.					
(23)	Indicate the year the affected item was manufactured.					
(24)	Indicate the name, section and division of the original construction code for the affected item.					
(25)	Indicate the code class for the affected item as applicable, i.e. Class 1, 2 or 3.					
(26)	Indicate the construction code edition for the affected item.					
(27)	Indicate the construction code addenda, as applicable, for the affected item.					
(28)	Indicate any applicable code cases used for manufacturing of the affected item.					
(29)	Name of the replacement part.					
(30)	Identifying number of the replacement part.					
(31)	Number/quantity of each replacement part used.					
(32)	Indicate the Serial number or other traceability used by the manufacturer of the replacement part.					
(33)	Type or print name of authorized representative from the certificate holder.					
(34)	Indicate code as applicable to the repair/replacement activity performed.					
(35)	Indicate National Board Certificate of Authorization number, if applicable for the "VR" Stamp.					
(36)	Indicate month, day, and year the certificate expires, if applicable for the "VR" Stamp.					
(37)	Indicate National Board Certificate of Authorization number, if applicable for the "NR" Stamp.					
(38)	Indicate month, day, and year the certificate expires, if applicable for the "NR" Stamp.					
(39)	Signature of authorized representative from the certificate holder defined in item 27 above.					

TABLE \$9.7 CONT'D

Reference to Circled Numbers in the Form	Description
(40)	Indicate month, day, and year of signature by the authorized representative.
(41)	Title of authorized representative as defined in the Quality Program.
(42)	Type or print name of Authorized Nuclear Inspector.
(43)	Indicate the Jurisdiction where the activity is performed, when required.
(44)	Indicate Authorized Nuclear Inspector's employer.
(45)	Indicate address of Authorized Nuclear Inspector's employer (city and state or province).
(46)	Indicate month, day, and year of inspection by the Authorized Nuclear Inspector.
(47)	Signature of Authorized Nuclear Inspector defined in item 42 above.
(48)	Indicate month, day, and year of signature by the Authorized Nuclear Inspector.
(49)	National Board Commission number and required endorsements.

PART 3, SECTION 9 REPAIRS AND ALTERATIONS — GLOSSARY OF TERMS

9.1 DEFINITIONS

For the purpose of applying the rules of the NBIC, the following terms and definitions shall be used herein as applicable to each part:

Additional terms and definitions specific to DOT Transport Tanks are defined in NBIC Part 2, Supplement 6.

Accumulator — A vessel in which the test medium is stored or accumulated prior to its use for testing.

Alteration — A change in the item described on the original Manufacturer's Data Report which affects the pressure containing capability of the pressure-retaining item. (See NBIC Part 3, 3.4.3, *Examples of Alteration*) Nonphysical changes such as an increase in the maximum allowable working pressure (internal or external), increase in design temperature, or a reduction in minimum temperature of a pressure-retaining item shall be considered an alteration.

ANSI — The American National Standards Institute.

Appliance — A piece of equipment that includes all controls, safety devices, piping, fittings, and vessel(s) within a common frame or enclosure that is listed and labeled by a nationally recognized testing agency for its intended use.

ASME — The American Society of Mechanical Engineers.

ASME Code — The American Society of Mechanical Engineers Boiler and Pressure Vessel Code published by that Society, including addenda and Code Cases, approved by the associated ASME Board.

Assembler — An organization who purchases or receives from a manufacturer the necessary component parts of valves and assembles, adjusts, tests, seals, and ships safety or safety relief valves at a geographical location, and using facilities other than those used by the manufacturer.

Authorized Inspection Agency (AIA)

Inservice: An Authorized Inspection Agency is either:

- a Jurisdictional authority as defined in the National Board Constitution; or
- an entity that is accredited by the National Board meeting NB-369, Accreditation of Authorized Inspection Agencies Performing Inservice Inspection Activities; NB-371, Accreditation of Owner-User Inspection Organizations (OUIO); or NB-390, Accreditation of Federal Inspection Agencies (FIA).

New Construction: An Authorized Inspection Agency is one that is accredited by the National Board meeting the qualification and duties of NB-360, National Board Acceptance of Authorized Inspection Agencies (AIA) Accredited by the American Society of Mechanical Engineers (ASME).

Authorized Nuclear Inspection Agency — An Authorized Inspection Agency meeting the qualification and duties of NB 360, National Board Acceptance of Authorized Inspection Agencies (AIA) Accredited by the American Society of Mechanical Engineers (ASME) and intending to perform nuclear inspection activities and employing Authorized Nuclear Inspectors / Supervisors. The Certificate of Accreditation from ASME must include the performance of inspection activities covering Section III and Section XI of the ASME Boiler and Pressure Vessel Code in accordance with the applicable parts of ASME QAI-1.

Biomass — Fuels which result from biological sources requiring a relatively short time for replenishment: Wood and bagasse are typical examples.

Biomass Fired Boiler — A boiler which fires biomass as its primary fuel.



Subject:	Change Part 3, 1.6.4 d) (or elsewhere) to require audits to be performed by Supervisor
NBIC Location:	2023 NBIC, Part 3, 1.6.4 d)
Statement of Need:	TBD
Background Information:	TBD

Proposed Text:

1.6.4 OBTAINING OR RENEWING A NATIONAL BOARD "NR" CERTIFICATE OF AUTHORIZATION

d) The "NR" *Certificate of Authorization* holder shall be subject to an audit annually by an ANIS employed by the Authorized Nuclear Inspection Agency to ensure compliance with the Quality Assurance Program.

1.3 INSPECTOR

- c) Inspection and certification of Repair and Replacement activities for Nuclear Items, the Inspector shall additionally:
 - 1) For Category 1, Hold the "N" endorsement in accordance with NB-263, Rules for Commissioned Inspectors (RCI-1), and be employed by an Authorized Nuclear Inspection Agency.
 - 2) For Category 2, Hold the "I" endorsement in accordance with NB-263, Rules for Commissioned Inspectors (RCI-1), and be employed by an Authorized Nuclear Inspection Agency.
 - 3) For Category 3, Hold qualifications required by the Regulatory Authority. The Inspector shall be employed by an Authorized Nuclear Inspection Agency or an designated inspection agency appointed or accepted by the Regulatory Authority having jurisdiction over the designated plant.

1.3.1 SUPERVISOR

- a) Inspectors shall be supervised by an individual holding a valid National Board commission with the "R" endorsment as required above.
- b) Supervisor of Inspectors performing inspection and certification of Repair and Replacement activities of Nuclear Items shall additionally:
 - 1) For Category 1 and 2 Hold a "NS" endorsement and be employed by an Authorized Nuclear Inspection Agency in accordance with NB-263, Rules for Commissioned Inspectors (RCI-1).
 - 2) For Category 3 Hold qualifications required by the Regulatory Authority. The Supervisor shall be employed by an Authorized Nuclear Inspection Agency or a designated inspection agency appointed or accepted by the Regulatory Authority having jurisdiction over the designated plant.

1.3.2 AUTHORIZATION

c) The Inspector's authorization shall be obtained by the "NR" Certificate Holder prior to initiation of a repair and replacement activities to a nuclear items. The Inspector shall determine that the repair and replacement methods are acceptable.

1.3.3 INSPECTIONS AND CERTIFICATIONS

a) Inspections and NBIC Form R Report certifications shall be performed by the same Inspector who authorized the repair or alteration, or repair and replacement activity. Where this is not possible or practicable, another Inspector may perform these duties; however, in all cases, duties

associated within the same scope of work shall be performed by Inspectors employed by the same Authorized Inspection Agency.



Subject:	Registration of NR Forms within 30 Days
NBIC Location:	2023 NBIC, Part 3, 5.5 a)
Statement of Need:	5.5 a) states repairs and alterations requiring registration must be submitted within 30 days of certification. It is unclear if this requirement applies to repair/replacement activities under the "NR" or "NVR" programs.
Background Information:	Removing the words, "performing a repair or alteration" from 5.5 a) would then include registration requirements for repair/replacement activities under the "NR" or "NVR" programs referenced in 5.5.4. 5.5.4 states, "Organizations performing repair/replacement activities under the "NR" or "NVR" stamp program shall register forms with the National Board."

Proposed Text:

5.5 REGISTRATION OF FORMS — GENERAL

- a) When registration of the forms is required, the Certificate Holder performing a repair or alteration shall submit the completed form, meeting the requirements of the NBIC, to the National Board no more than 30 days following certification.
- b) When registration of the forms is not required, the Certificate Holder may register the completed form, meeting the requirements of the NBIC, with the National Board.
- c) The "R" or "NR" Certificate Holder should be aware that some Jurisdictions may require registration of repairs and alterations with the National Board.