

The National Board of Boiler and Pressure Vessel Inspectors

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nationalboard.org

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*Denotes Revised Section(s)

1.0 SCOPE

This document provides the requirements for the elements to be included in the written quality programs for organizations seeking a National Board Certificate of Accreditation for the following programs:

- NB-360, National Board Acceptance of Authorized Inspection Agencies (AIA) Accredited by the American Society of Mechanical Engineers (ASME), seeking accreditation to perform inspections of Repairs and/or Alterations in accordance with the NBIC Part 3.
- NB-369, Accreditation of Authorized Inspection Agencies (AIA) Performing Inservice Inspection Activities
- NB-371, Accreditation of Owner-User Inspection Organizations (OUIO) Performing Inservice Inspection Activities
- NB-390, Accreditation of Federal Inspection Agencies (FIA) Performing Inservice Inspection Activities.

The term "inspection organization" used in this document refers to these entities collectively.

This document also serves as a checklist that may be used by inspection organizations and review teams.

A documented quality program must be established, implemented and maintained by the inspection organization in accordance with the requirements of this document.

The written quality program and any future revisions must be approved by a representative of the inspection organization and then accepted by the National Board prior to implementation. The written quality program may be in either printed or electronic format and the National Board will accept either.

The Inspection Organization must employ Inspectors who meet the requirements of NB-263, RCI-1, *Rules for Commissioned Inspectors* and hold a valid National Board Commission, with Endorsement, as applicable.

The Inspection Organization shall provide one or more supervisors/technical manager(s) to be in attendance during the review and verification of implementation of its quality program by the National Board.

For those, Authorized Inspection Agencies (AIA's) accredited by the American Society of Mechanical Engineers (ASME) to ASME standard QAI-1, the National Board suggests developing a separate quality program to address NB-369 requirements. The degree of separation, if any, is entirely at the discretion of the AIA. When making this decision, the AIA must remain cognizant of the potential conflicts in gaining the

necessary approvals of two organizations (ASME and the National Board) for any "overlapping" program elements. The term "Inspector" as used in this document refers to a National Board Commissioned Inspector. An English language version of the manual is required for use by the National Board.

2.0 INSPECTION ORGANIZATION QUALITY PROGRAM

The inspection organization's quality program must, at a minimum, include the elements required by the applicable National Board program, as well as the following:

- a) *Title Page*. The title page should contain the company name, physical address and scope of activities. It may also contain any other information desired by the inspection organization.
- b) Statement of Authority. The statement of authority must identify the authority and responsibility of those persons charged with ensuring the quality program is implemented as described, their freedom in the organization to identify quality problems, and to initiate, recommend, and provide solutions. It must also contain a statement of the full support of management and must be dated and signed by a senior management official of the inspection organization. Resolution of disagreements between department heads shall be resolved in a manner that will not conflict with code, jurisdictional or quality program requirements.
- c) Organization. An organizational structure is required showing the line of authority between management and the various individuals that perform functions described in the quality program. This may be in the form of a chart and/or descriptive text.

The organizational structure should contain job titles of key personnel within the organization. In larger organizations, additional departmental structures are often desirable showing additional job titles referenced in the manual and to whom responsibilities are specifically assigned.

Job titles used in the text of the manual must be consistent with those in the organizational structure.

- **d)** *Quality Program Responsibilities.* These responsibilities may be set forth as part of the statement of authority, as part of the organizational structure or in any manner the inspection organization may elect. It is not mandatory that this be a separate section of the manual. Quality program responsibilities that must be addressed are:
 - the identity and organizational placement of the individual who accepts complete responsibility for the quality program and its implementation;
 - the designation of an individual (by title) who is responsible for the day-to-day administration of the quality program;
 - the Inspector's method of obtaining technical assistance from the individual performing the duties of the Inspector Supervisor/technical manager.

- e) *Scope*. The scope must be provided as a part of the manual and shall identify the type and extent of inspection activities intended by the inspection organization. If, at any time, the scope of activities is changed, the manual must be revised to reflect that change.
- **f**) *Program Description*. The program shall document policies and describe the process for the implementation of the requirements of this document.
- **g**) *Document Control*. The written quality program must be controlled by the inspection organization in a manner which includes the following:
 - a description of the preparation, revision, distribution, approval and implementation of the manual and supporting procedures;
 - a description of how the quality program documents will be revised either by page, paragraph, or section and how these revisions will be identified, e.g., delta sign, vertical line, revision level, etc.;
 - a description of how proposed revisions to the quality manual are to be submitted to the National Board for acceptance prior to inclusion or implementation;
 - Editorial or other minor changes that do not materially impact the program are not required to be accepted by the National Board. Such changes shall be processed in accordance with the document control provisions of the program.
 - a description of how a current copy (controlled copy) of the manual is assigned to the National Board.
- **h)** *Training*. The type, extent, and frequency of inspector training must be included, as well as a description of the documentation used and retained. Areas which must be addressed include:
 - orientation training for new inspectors;
 - periodic training for all inspectors, including requirements for continuing education as required in NB-263, RCI-1;
 - specific topics, including as a minimum:
 - National Board Inspection Code (NBIC) and its revisions;
 - National Board Rules for Commissioned Inspectors (NB-263, RCI-1) and its revisions; and
 - the inspection organization's quality program and its revisions.
 - the method of training employed (classroom, self-study, etc.);
 - the method of evaluating the effectiveness of any training (examination, etc.); and
 - training documentation including:
 - training schedules
 - course topics (as a minimum)
 - verification of successful completion

- i) Records. Records management must be described including:
 - personnel responsible for records:
 - development
 - initiation
 - distribution
 - retention
 - maintenance
 - security
 - disposition
 - retention requirements;
 - the records necessary to verify compliance with this document, except for personnel qualification records, shall be maintained for a minimum of five (5) years;
 - the personnel qualification records necessary to verify compliance with this document shall be maintained while the individual is providing inspection services and for a minimum of five (5) years after the individual ceases to provide services.
- **j)** Corrective Actions. The quality program must have provisions for identification, resolution and disposition of conditions adversely affecting quality. This includes:
 - identification and documentation of the adverse condition;
 - personnel involved with the resolution and disposition of the adverse condition;
 - measures taken to preclude repetition of the adverse condition; and
 - report to management.
- k) Inservice Inspection. The program shall describe the process of developing, approving and controlling the written procedure covering the inspection of pressure retaining items, including the scope of expected activity. The method of performing and documenting inspection activities shall be described in sufficient detail to permit the inspector to determine at what stages specific inspection are due to be performed.
- I) Repairs/Alterations Inspection. When applicable, the program shall describe the process of authorizing and accepting repairs/alterations (including signing the NBIC report forms) when the organization is seeking to provide inspections of repairs and alterations within the scope of their program.
- **m**) *Reporting*. The program shall describe the process used by the inspector to take necessary action if an unsafe condition is encountered and to resolve conflicts by referring to a higher authority within the organization.
- **n)** Control of Contracted Services. The program shall describe the process for contracting and control of services if applicable.

- **o)** Audits. Internal audits of the quality program assist the inspection organization's management in maintaining consistent levels of quality. Areas which must be addressed include:
 - ensuring internal audits are scheduled and performed annually;
 - establishing procedures and/or checklists;
 - providing a means of documenting the internal audits;
 - providing audit results for management review;
 - ensuring any required follow-up action is performed and documented; and
 - maintaining internal audit documentation until the next National Board survey of the quality program.
- * **p)** *Independence, Impartiality and Integrity.* Provisions for requiring the Inspection Organization and its staff to be independent to the extent that is required with regard to the condition under which it performs its services shall be included in the quality program. Criteria to be addressed include:
 - The Inspection Organization shall be independent of the parties involved.
 - The Inspection Organization and its staff responsible for carrying out inspection activities shall not be the designer, manufacturer or supplier of the items which they inspect, nor the authorized representative of any of these parties.
 - The Inspection Organization and its staff shall not engage in any activities that may conflict with their independence of judgment and integrity in relation to their inspection activities.
 - There shall be an agreement that the National Board Commission and Endorsements issued to the Inspector will remain the property of the Inspection Organization, and will be returned to the Inspection Organization upon termination of the agreement.
 - There shall be an agreement that the Inspector will not engage in any activity constituting a conflict of interest.
- * **q**) *Sample Forms*. Provisions for controlling forms must be included in the written quality program. Forms should be identified by number, letter, or title and their use explained in the text of the manual. They may be included with each section or grouped together as an appendix or section. Forms shown should be marked "Sample" or "Exhibit" and are not required to be filled in or completed. All forms used in the implementation of the quality program must be included. Titles of the forms used in the text must match the titles of those shown as samples or exhibits.

Once a successful review has been completed, a controlled copy of the most current approved Quality Manual must be submitted to the National Board.