



The National Board
Body of Knowledge
for

ASME and National Board
Review Team Leaders

Approved by: _____

Executive Director

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(date of approval)

*Denotes Revised Section(s)

The National Board of Boiler and Pressure Vessel Inspectors

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The National Board Body of Knowledge for ASME and National Board Review Team Leaders

The National Board has developed this Body of Knowledge to outline the duties and responsibilities for individuals involved in audits, reviews, and surveys for manufacturer and repair organizations, and with the codes to which these activities apply.

Objectives

A Review Team Leader should have knowledge, and the ability to apply that knowledge, of the following:

- Duties and Responsibilities
- Quality Program Requirements
- Code Requirements
- Definitions and Terminology
- Procedure Requirements
- Audit Techniques

Reference Material

The following reference material is required to obtain and apply the knowledge of the listed objectives in this Body of Knowledge.

- NB-23, *National Board Inspection Code (NBIC), Part 3*
- NB-290, *Qualifications for National Board Team Leaders and National Board Representatives*
- *ASME Boiler and Pressure Vessel Code* Sections I, II, IV, VIII Div. 1, 2, 3, IX, X, and XII
- NB-57, *National Board Guide for ASME Joint Reviews*
- *ASME Conduct of Conformity Assessment Activity*
- *ASME Standard Qualification Criteria for Designees for Accreditation and Product Certification*
- ISO-19011, *Guidelines for Quality and/or Environmental Systems Auditing*

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Additionally for Pressure Relief Device Team Leaders:

- NB-23, *National Board Inspection Code (NBIC), Part 4*
- *ASME Boiler and Pressure Vessel Code, Section XIII*
- NB-541, *Selection of Pressure Relief Devices*
- NB-542, *Witnessing Tests of Pressure Relief Devices*
- NB-18, *Pressure Relief Device Certification*
- ASME PTC 25

Body of Knowledge Outline

This outline provides information regarding the listed objectives of this Body of Knowledge, and further describes the duties and responsibilities of the ASME and National Board Review Team Leader.

1. Duties and Responsibilities

Understanding and the ability to apply the team leader and team member's duties and responsibilities described in the following:

- *ASME Conduct of Conformity Assessment Activity*
- *NB-23, National Board Inspection Code, Part 3*
- *NB-290, Qualifications for National Board Team Leaders and National Board Representatives*
- *ASME Boiler and Pressure Vessel Code Sections I, II, IV, VIII Div. 1, 2, 3, IX, X, and XII*

* ***Additionally for Pressure Relief Device Team Leaders***

- *NB-23, National Board Inspection Code (NBIC), Part 4*
- *ASME Boiler and Pressure Vessel Code, Section XIII*
- *NB-541, Selection of Pressure Relief Devices*
- *NB-542, Witnessing Tests of Pressure Relief Devices*

2. Quality Program Requirements

Thorough understanding of the elements quality program requirements described in the following:

- *NB-23, National Board Inspection Code, Part 3*
- *ASME Boiler and Pressure Vessel Code Sections I, II, IV, VIII Div. 1, 2, 3, IX, X, and XII*

* ***Additionally for Pressure Relief Device Team Leaders***

- *NB-23, National Board Inspection Code (NBIC), Part 4*
- *ASME Boiler and Pressure Vessel Code, Section XIII*

Ability to review an organization's written quality system and the ability to determine if the organization can implement their quality system for construction and repair/alterations of pressure-retaining items.

3. Code Requirements

Knowledge of the Code requirements in the following:

- *NB-23, National Board Inspection Code, Part 3*
- *ASME Boiler and Pressure Vessel Codes Sections I, II, IV, VIII Div. 1, 2, 3, IX, X, and XII*

* ***Additionally for Pressure Relief Device Team Leaders***

- *NB-23, National Board Inspection Code (NBIC), Part 4*
- *ASME Boiler and Pressure Vessel Code, Section XIII*
- *ASME PTC 25*

Ability to apply the Code requirements, during a review of an organization's quality system, to ensure compliance with all required elements.

4. *Definitions and Terminology*

Knowledge of definitions and terminology pertaining to the construction and/or repair/alteration of pressure-retaining items.

Knowledge of definitions and terminology pertaining to quality system auditing.

5. Procedure Requirements

Understanding and the ability to apply the procedure requirements of the following:

- NB-290, *Qualifications for National Board Team Leaders and National Board Representatives*
- *ASME Conduct of ASME Surveys, Reviews, Audits, Investigations and Interviews*
- NB-23, *National Board Inspection Code, Part 3*

* ***Additionally for Pressure Relief Device Team Leaders:***

- NB-23, *National Board Inspection Code (NBIC), Part 4*
- NB-541, *Selection of Pressure Relief Devices*
- NB-542, *Witnessing Tests of Pressure Relief Devices*
- NB-18, *Pressure Relief Device Certification*

Thorough understanding of the elements of a review or survey, such as:

- Manual Review
- Entrance meeting
- Implementation Demonstration
- Team Findings and Recommendations (Team Meeting)
- Exit Meeting

Ability to complete the review/survey report (QRR).

6. Audit Techniques

Understanding and the ability to apply sound audit techniques as described in ISO-19011, *Guidelines for Quality and/or Environmental Systems Auditing*.

Thorough understanding and ability to audit quality-related functions such as the following activities:

- Designing
- Purchasing
- Fabricating
- Handling, Shipping, and Receiving
- Storing and Cleaning
- Erecting and Installing
- Examining, Testing, and Inspecting
- Maintaining, Repairing, and Altering