



**THE NATIONAL BOARD
BODY OF KNOWLEDGE
FOR**

**AUTHORIZED INSPECTOR
SUPERVISORS**

Approved by: _____

Executive Director

7/14/15

(date of approval)

*Denotes Revisions

The National Board of Boiler and Pressure Vessel Inspectors

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THE NATIONAL BOARD

BODY OF KNOWLEDGE FOR

AUTHORIZED INSPECTOR SUPERVISORS

The National Board has developed this Body of Knowledge to outline duties and responsibilities for supervisors of inspectors performing inspection activities during the construction phase of (non-nuclear) pressure equipment built in accordance with the *ASME Boiler and Pressure Vessel Code*. This Body of Knowledge builds on the *Body of knowledge for New Construction/Authorized Inspector*, NB-331-NC.

The Authorized Inspector Supervisor shall be selected by his/her employer and must have a minimum of 2 years' experience as an Authorized Inspector.

OBJECTIVES

An Authorized Inspector Supervisor should have knowledge, and the ability to apply that knowledge, of the following:

- Responsibilities and Duties of the Authorized Inspection Agency (AIA)
- Responsibilities and duties of the Authorized Inspector Supervisor (AIS)
- Responsibilities and duties of the Authorized Inspector (AI)
- Manufacturer Responsibilities
- Quality Control Systems
- Auditing Authorized Inspectors
- ASME Joint Review Process
- Requirements of ASME Code Sections I, IV, VIII Div. 1, 2, 3, X, and ASME B31.1

REFERENCE MATERIAL

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

- ASME Section I, Power Boilers
- ASME B31.1, Power Piping
- ASME Section IV, Heating Boilers
- ASME Section V, Nondestructive Examination
- ASME Section VIII, Div. 1, Pressure Vessels
- ASME Section IX, Welding and Brazing
- ASME Section X, Fiber-Reinforced Plastic Pressure Vessels
- ASME QAI-1, *Qualification for Authorized Inspection*
- ASNT SNT-TC-1A
- *RCI-1, NB-263, *Rules for Commissioned Inspectors*
- NB-360, *National Board Criteria for Acceptance of Authorized Inspection Agency (AIA) for New Construction*
- NB-57, *National Board Guide for ASME Joint Reviews*

Approved translations are acceptable.

BODY OF KNOWLEDGE OUTLINE

This outline provides information regarding the listed objectives of this Body of Knowledge, and further describes the responsibilities and duties of an Authorized Inspector Supervisor.

1. Responsibilities and duties of the Authorized Inspection Agency (AIA)

Understanding of NB-360 and ASME QAI-1 applicable to:

- Accreditation
- Quality Program
- Qualification of personnel providing inspection services
- Conducting Annual Audits of Supervisors

2. Responsibilities and duties of the Authorized Inspector Supervisor (AIS)

Understanding of RCI-1 and ASME QAI-1 applicable to:

- Performance of Authorized Inspector
- Authorized Inspector assignments
- The Quality Control Programs of assigned clients

3. Responsibilities and duties of the Authorized Inspector (AI)

Understanding of RCI-1, ASME QAI-1, and ASME Codes applicable to:

- Monitoring Quality Control Program Elements of assigned clients
- Verify Welding and NDE Procedures comply with applicable code requirements
- Verify welders and NDE personnel Qualification comply with applicable code requirements
- Observation of fabrication processes to assure compliance with applicable code requirements

4. Manufacturer Responsibilities

Familiarity with ASME Codes applicable to:

- Design
- Materials
- Fabrication
- Testing
- Certification and Stamping
- Record Retention

5. Quality Control Systems

Familiarity with ASME Codes applicable to:

- Manufacturers Quality Control System
- Quality Control System Documentation
- Quality Control System Implementation

6. Conducting Annual Planned Audits of the Authorized Inspector

Understanding of the requirements of RCI-1 and ASME QAI-1 applicable to:

- Auditing performance of Authorized Inspectors
- Confirm Authorized Inspector involvement in corrective action of deficiencies

7. *ASME Joint Review Process*

Familiarity with NB-57 and ASME procedures applicable to:

- ASME joint review process
- Involvement of the Authorized Inspector and Authorized Inspector Supervisor