



National Board
Inservice
Inspector Training Program

THE
NATIONAL
BOARD

OF BOILER AND
PRESSURE VESSEL
INSPECTORS

Approved by the Committee on Qualifications for Inspection: March 23, 2010

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*Denotes Revised Section(s)

NB-380, Revision 2

NATIONAL BOARD INSERVICE INSPECTOR TRAINING PROGRAM

1.0 Overview

1.1 Purpose

The purpose of the National Board Inservice Inspector Training Program is to provide alternate methods for individuals to qualify for a National Board Inservice Commission. The successful completion of the program, will be accepted as satisfying the five (5) point minimum requirement for education and experience as defined in the Rules for National Board Inservice and New Construction Commissioned Inspectors, NB-263.

An employer of prospective commissioned inspectors may use this training program as a guide to define the minimum requirements for on-the-job training. The employer's specific training may be more extensive in scope and duration than described in this document.

1.2 Scope

This program is open to any regular employee of an Authorized Inspection Agency or Owner/User Inspection Organization.

2.0 Program Requirements

2.1 On-the-Job Training

The employer shall provide the trainee with a minimum of 800 hours (20 weeks) of on-the-job training in the presence of a National Board Commissioned Inspector(s). The training/experience must be documented with each specific area verified by a National Board Commissioned Inspector. Refer to Paragraph 3 for a detailed description of the topics to be included.

2.2 Technical Training

The individual must complete the National Board Inservice Commission 80 hour course or an 80 hour exam preparation course offered by others.

3.0 On-the-Job Training Outline

<u>Topics</u>	<u>Minimum Hours</u>
3.1 <u>General Safety Practices</u> Confined space entry procedures Personnel protection: head, eyes, feet, face body Lighting, portable and low voltage Fall protection: Scaffolding, safety line, safety harness Drug and alcohol awareness CPR and First Aid	24
3.2 <u>Planning and Scheduling</u> Using jurisdictional law and regulations Using construction and repair codes Understanding addenda and interpretation	25
3.3 <u>Data Evaluation and Documentation</u> Record Keeping Report writing, general Expense account completion Documenting findings and deficiencies Completing repair reports Keeping log books Investigation Methods	25
3.4 <u>Inspection and Testing (Participate in 100 boiler or pressure vessel inspections)</u>	500
3.4.1 <i>Internal and external inspection of a wide variety of boiler types including:</i> Firebox return tube – high or low pressure Horizontal return tube – high or low pressure Scotch marine fire tube – high and low pressure Cast iron – low pressure Water tube – high pressure	
3.4.2 <i>Pressure Vessel Inspections</i> For trainees working in jurisdictions which include pressure vessels in their law, internal and external inspection of wide variety of pressure vessel types including: Air Receivers Water Storage Heat Exchangers Autoclaves Jacketed Vessels Cracking Towers Deaerators PVHO	
3.4.3 <i>Familiarization with Tools</i> Mirrors Hammers Measuring tools Welding gauges	

3.5 Repairs and Alterations

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- ◇ Review travelers (or equivalent) and establish hold and inspection points.
- ◇ Perform inspections to authorize repairs or alterations.
- ◇ Perform in process inspections of repairs or alterations.
- ◇ Perform acceptance inspection of repairs or alterations.
- ◇ Knowledge of pressure testing process and procedures.
- ◇ Review NDE methods:
 - knowledge of qualification and certification requirements for NDE personnel for RT, UT, MT, PT and VT
 - witness two examinations of each method “RT”, “UT”, “MT”, “PT”, and “VT” including exam results
- ◇ Knowledge of requirements for qualifications of welding procedures.
- ◇ Review at least ten Welding Procedure Specifications and Procedure Qualifications.
- ◇ Review at least ten welder/welding operator Qualifications.
- ◇ Review requirements for handling and storage of welding consumables.
- ◇ Review heat treatment processes and procedures.

3.6 Welding Inspection

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- ◇ Fit-up
- ◇ Root Pass
- ◇ Intermediate Passes
- ◇ Final Cover
- ◇ Slag Removal
- ◇ Grinding
- ◇ Weld Gages

Total Hours 800