



CRITERIA FOR AUTHORIZATION TO APPLY THE “NB” MARK TO PRESSURE RELIEF DEVICES

The National Board of Boiler and Pressure Vessel Inspectors

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1.0 Scope

This document establishes the requirements for organizations seeking a National Board *Certificate of Authorization* to apply the “NB” Mark (*Certificate of Authorization*) to pressure relief devices.

- 1.1 Organizations seeking a *Certificate of Authorization* must have, in the English language, a written quality control system that complies with the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME BPV Code), Section I, III, IV, VIII or XII, as applicable, and includes the expected scope of work.
- 1.2 *Certificates of Authorization* may be issued to a manufacturer or assembler (manufacturing organization) holding a valid ASME Certificate of Authorization for use of an ASME BPV code certification mark.
- 1.3 Each device to which the National Board “NB” mark will be applied must be of a type certified by the National Board in accordance with Paragraph 6. The device shall meet the requirements of one of the following ASME BPV Code Sections: I, III, IV, VIII Division 1, 2 and 3 or XII.

2.0 Application

- 2.1 Organizations seeking to obtain or renew a *Certificate of Authorization* must apply to the National Board using forms obtained from the National Board. Application for renewal must be made prior to the expiration date of the *Certificate of Authorization*.
- 2.2 When an organization has plants or shops in more than one location, the organization must submit a separate application for each plant or shop.
- * 2.3 Deleted

3.0 Review of Applicant’s Facility

- * 3.1 Prior to issuance or renewal of a *Certificate of Authorization*, the manufacturing organization, its written Quality System, and its facilities are subject to a review and verification of implementation of its written Quality System by a representative of the National Board. Section III reviews shall be done by ASME.

- * 3.2 Except for manufacturers of nuclear pressure relief devices, the applicant shall submit a minimum of two pressure relief devices as a demonstration of their quality system, including at least one device for each ASME BPV Code Section to be on the National Board Certificate. These devices shall then be submitted to a National Board accepted test laboratory for testing.
 - 3.3 The applicant shall have a copy of the latest mandatory edition of ASME BPV Code Sections the organization is including in its scope.
 - 3.4 Upon notification of the review dates from the National Board, it is the responsibility of the organization to make arrangements for this review.
 - 3.5 A recommendation to issue, renew, or withhold the *Certificate of Authorization* shall be included in a Qualification Review Report prepared by the Review Team. The completed Qualification Review Report shall be forwarded to the National Board.
 - 3.6 When all requirements have been met, a *Certificate of Authorization* will be issued evidencing permission to use the "NB" Mark. The *Certificate of Authorization* shall expire on the triennial anniversary date.
- 4.0 Use of the "NB" Mark
- 4.1 "NB" Mark Use
- Each "NB" mark shall be obtained from the National Board and shall be used only by the organization within the scope and limitations under which it was issued. The organization's written Quality System shall provide for constant control of the "NB" Mark. The organization shall not permit others to use the "NB" mark assigned to them.
- 4.2 Return of "NB" Mark
- Each applicant shall agree, if authorization to use the mark is granted, that the mark is the property of the National Board and will be promptly returned upon demand. The "NB" Mark shall be returned to the National Board if the organization discontinues the manufacture or assembly of pressure relief devices or if the "NB" *Mark* issued to such applicant has expired and no new certificate has been issued.
- 4.3 *Certificate of Authorization* Contents
- * The name and address of the manufacturing organization, the certificate number, the issue date, expiration date, and the ASME BPV section

(Section I, III, IV, VIII and/or XII), shall be specified on the manufacturing organization's Certificate of Authorization.

4.4 Changes in Scope, Ownership, Name, Location or Address

The National Board must be notified when a manufacturing organization holding a *Certificate of Authorization* changes scope, ownership, name, location, or address. The National Board will provide appropriate forms to revise the *Certificate of Authorization*. At the option of the National Board, a re-review of the manufacturing organization's written Quality System and/or its implementation may be required.

4.5 Issuance of Multiple "NB" Marks

The holder of a *Certificate of Authorization* may obtain more than one "NB" Mark provided its written Quality System manual controls the use of such stamps from the address of record shown on the *Certificate of Authorization*.

5.0 Written Quality System

A holder of a *Certificate of Authorization* shall have and maintain a written Quality System. It shall be treated confidentially by the National Board and by the Review Team. A controlled copy of the accepted written Quality System shall be issued to the National Board. Except for changes which do not affect the Quality System, revisions to the written Quality System shall not be implemented until such revisions are accepted by the National Board. Manufacturing, assembly, inspection and test operations including capacity verification are subject to inspections at any time by the National Board.

6.0 Certification of Device Designs

6.1 Design Review (for Manufacturers only)

The pressure relief device design type shall be reviewed by the National Board to determine that applicable mechanical and material requirements of the construction code have been considered and incorporated into the design as necessary.

6.2 Initial Testing (for Manufacturers only)

After completion of the design review, testing of devices specified by the ASME BPV Code shall be conducted to determine the rated capacity or flow resistance which will be applied to the production device. Agreement shall be reached between the manufacturer and the National Board as to

the number, sizes and set pressures of the devices to be tested. These tests shall be performed for new designs or when an existing design is modified. Modifications of designs, which affect the flow path, lift or performance characteristics shall be reviewed by the National Board. Provisions for notifying the National Board of design changes shall be included in the applicant's quality system.

* 6.3 Production Testing (Manufacturers and Assemblers)

A manufacturing organization may be granted permission to apply the National Board "NB" mark to production pressure relief devices (of designs for which initial testing has been completed) provided the following tests are successfully completed. This permission shall expire on the anniversary of the date it is initially granted. This permission may be extended for the period specified by the ASME BPV if the following tests are successfully repeated within the 6-month period before expiration.

- * 6.3.1 Two sample production pressure relief devices of a size and capacity within the capability of a National Board accepted laboratory shall be selected for testing by a National Board representative. Provisions are available for design scopes which exceed laboratory limits.
- 6.3.2 Operational and capacity tests shall be conducted in the presence of a National Board representative at a National Board accepted laboratory. The device manufacturing organization shall be notified of the time of the test and may have representatives present to witness the test.
- 6.3.3 Should any device fail to relieve at a rate for which it is certified or should it fail to meet performance requirements of the construction code, the test shall be repeated at the rate of two replacement devices, for each device that failed.
- * 6.3.4 Should any of the replacement pressure relief devices fail to meet the capacity or performance requirements of this section, the Manufacturer or Assembler shall determine the cause of failure and take corrective action to guard against future occurrence. This cause of failure and corrective action shall be documented and submitted to the National Board within 60 days of the failure or be cause for revocation of the authorization to use the NB Mark on that particular device. Upon acceptance of the submitted corrective action, retesting with 6.3.1 shall apply.

- * 6.3.5 Devices constructed in accordance with ASME BPV Code Section III are exempt from production test requirements. The Manufacturer shall maintain an active quality program and submit a renewal application verifying the design has not been modified.

6.4 Marking

When permission to apply the "NB" mark is received, the "NB" mark shall be applied to the device or a nameplate attached to the device. The value of relieving capacity or flow resistance marked on the device shall be the value certified by the National Board unless otherwise permitted by the ASME BPV Code. The arrangement of the marking shall conform to Figure 1 and is subject to National Board acceptance.

6.5 Transfer of Design Certifications

A manufacturer may request the results of the initial capacity testing (Paragraph 6.2) determined for one location be applied to a device type of identical design manufactured by the same organization at a different location. The following conditions must be met:

- 6.5.5 The manufacturer certifies to the National Board that the design is identical to the originally certified design and that the same production drawings are used at each location,
- 6.5.6 This quality system shall include provision for the control of drawings and specifications between each location,
- 6.5.7 Device nameplates uniquely identify the location of manufacture, and;
- 6.5.8 Each location must meet the production testing requirements of Paragraph 6.3.

6.6 Transfer of Permission

Permission granted to a manufacturer or an assembler in accordance with Paragraph 6.3 may be transferred to a new location when the organization relocates its facility within the same metropolitan area provided that:

- 6.6.5 Ownership, personnel and equipment are essentially unchanged and,

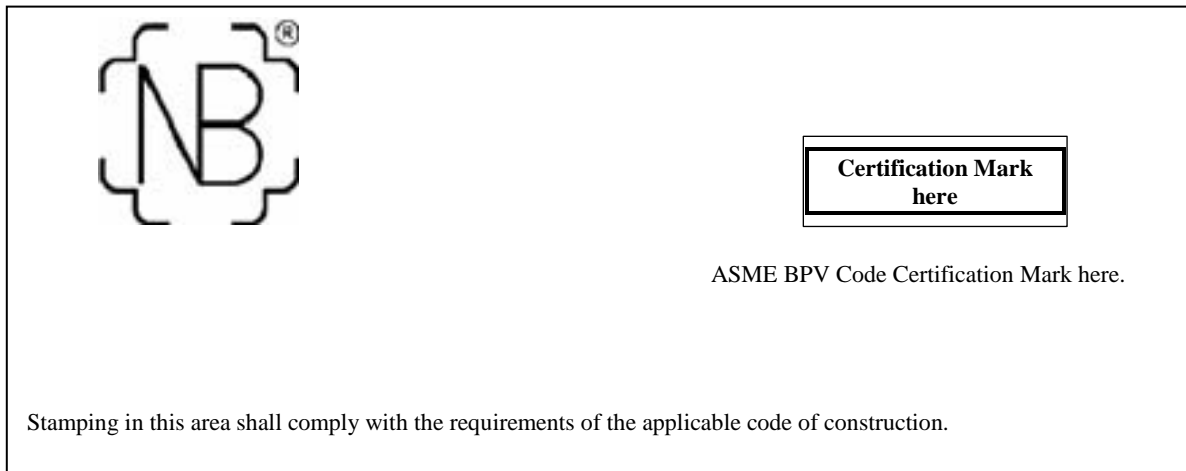
6.6.6 Two pressure relief devices per test medium are selected for testing and satisfy the performance requirements of the construction code, and,

* 6.6.7 The requirements of Paragraphs 2.0 and 3.0 have been met.

6.7 Location of Testing

All required testing must be conducted at a facility and supervised by individuals that have been accepted by the National Board. Testing shall be conducted in accordance with ASME PTC 25, Pressure Relief Devices, available from the American Society of Mechanical Engineers.

Figure - 1 “NB” Marking Requirements



Facsimile of application of the “NB” mark for National Board Certification