



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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*Denotes Revised Section

Criteria for Authorization to Apply the “NB” Mark to Pressure Relief Devices

* 1.0 Scope

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

- 1.1 Organizations seeking a *Certificate of Authorization* shall have a written Quality Management System (QMS), in the English language, that complies with the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (BPV Code) Sections I, III, or XIII, as applicable, and includes the expected scope of work.
- 1.2 A *Certificate of Authorization* may be issued to an organization that is a manufacturer and/or assembler of PRDs which holds a valid ASME *Certificate of Authorization* for use of the ASME Single Certification Mark with applicable ASME BPV Code Designators (Designator).
- 1.3 Each PRD to which the “NB” Mark is applied shall be a type that is certified by the National Board in accordance with Section 6.0 of this procedure. The PRD shall meet the requirements of at least one of the following ASME BPV Code Sections: I, III, or XIII.

2.0 Application

- * 2.1 Organizations seeking to obtain a *Certificate of Authorization* shall apply to the National Board using the NB-504, *Application for the National Board “NB” Certificate of Authorization* (NB-504). The NB-504 may be obtained from the National Board’s website, under the “PRD Test Lab” tab.
- * 2.2 Organizations seeking to renew their *Certificate of Authorization* shall apply for renewal at least six months prior to the expiration date of the *Certificate of Authorization*.
- 2.3 When an organization has plants or shops in more than one location, the organization shall submit a separate application for each plant or shop.

* 3.0 Review of Applicant’s Facility

- 3.1 Prior to being issued a *Certificate of Authorization*, an organization’s facilities and QMS are subject to a review and verification of implementation by a National Board Representative. ASME BPV Code Section III reviews shall be conducted by ASME.
- 3.2 Unless the applicant is a manufacturer of nuclear PRDs, they shall submit a minimum of two PRDs as a demonstration of their QMS, including at least one PRD for each Designator associated with the National Board *Certificate of Authorization*. These PRDs shall then be submitted for testing to an ASME accredited testing laboratory.
- 3.3 The applicant shall have a copy of the latest mandatory edition of ASME BPV Code sections for each Designator included in the scope of the National Board *Certificate of Authorization*.
- 3.4 Upon receiving the National Board’s notification of review dates, the organization shall make arrangements for the review.
- 3.5 A recommendation to issue, renew, or withhold the *Certificate of Authorization* shall be

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included in a Qualification Review Report (QRR) prepared by the National Board Representative conducting the review. The completed QRR shall be forwarded to the National Board.

- 3.6 When all requirements of this procedure have been met and a new/renewed ASME *Certificate of Authorization* has been issued, a National Board *Certificate of Authorization* will be issued allowing the organization to use the “NB” Mark. The *Certificate of Authorization* shall expire every three years following the date of issuance or renewal.

* 4.0 Use of the “NB” Mark

4.1 Use of the “NB” Mark

The “NB” Mark shall be used only by the organization within the scope and limitations under which it was issued. The organization’s QMS shall provide for constant control of the “NB” Mark. The organization shall not permit others to use its assigned “NB” Mark.

4.2 Return of the “NB” Mark

Each applicant shall agree that the “NB” Mark is the property of the National Board and that as such, it 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 PRDs or if the National Board *Certificate of Authorization* has expired and a renewal application is not pending.

4.3 *Certificate of Authorization* Contents

The following information is specified on the organization’s *Certificate of Authorization*:

- The company name and physical address of the organization;
- The certificate’s issue date and expiration date; and
- The Designator(s) associated with the certificate.

4.4 Organization Changes/Revisions

4.4.1 The *Certificate of Authorization* is valid only while the organization operates under the company name, physical address, and scope as shown on the *Certificate of Authorization*. If an organization changes the company name, physical address, or scope as listed on the *Certificate of Authorization*, they shall notify the National Board by completing the applicable form listed below. Based on the changes requested a re-review of the organization’s QMS and/or its implementation may be required. If a re-review is not required, the National Board will issue a revised *Certificate of Authorization* proceeding issuance of a revised ASME *Certificate(s) of Authorization*.

- Company Name – Any changes to the organization’s company name, division, or abbreviation for stamping as listed on the *Certificate of Authorization* requires the organization to submit an NB-519, *National*

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Board “VR,” “T/O,” and/or “NB” Certificate of Authorization Name Change Application.

- Physical Address – Any changes to the organization’s address as listed on the *Certificate of Authorization* requires the organization to complete an NB-504.
- Scope – Any changes to the ASME Designators listed on the *Certificate of Authorization* requires the organization to complete an NB-504.

4.4.2 If the organization changes ownership, they shall notify the National Board in writing. The new owners may take full responsibility for all work previously performed under the *Certificate of Authorization*. If the new owners do not want to take responsibility for all work performed under the certificate, the new owners shall submit an NB-504 to apply for a new *Certificate of Authorization*.

4.4.3 When an organization holding a *Certificate of Authorization* changes primary or alternate contact information (person’s name, phone, email, and/or postal address), the organization shall notify the National Board Technical Department–Pressure Relief Laboratory in writing.

4.5 Issuance of Multiple “NB” Marks

A Certificate Holder may obtain more than one “NB” Mark provided its QMS controls the use of such from the address of record shown on the *Certificate of Authorization*.

* 5.0 Quality Management System

A Certificate Holder shall have and maintain a QMS. It shall be treated confidentially by the National Board and by the National Board Representative. A controlled copy of the accepted QMS shall be issued to the National Board. Changes or revisions which affect the QMS shall not be implemented until such changes or revisions are accepted by the National Board. Manufacturing, assembly, inspection, and test operations, including capacity verification, are subject to National Board inspections at any time.

* 6.0 Certification of PRD Designs

6.1 Design Review (for manufacturers only)

The National Board shall review the PRD design type to determine that the mechanical and material requirements of the applicable ASME BPV Code have been considered and incorporated into the design as necessary.

6.2 Initial Testing (for manufacturers only)

Once the design review has been completed, the manufacturer shall conduct testing of the PRDs. Such testing shall be specified by the ASME BPV Code and shall be conducted to determine the rated capacity or flow resistance to be applied to the production PRD. The manufacturer and the National Board shall agree on the number, sizes, and set pressures of the PRDs to be tested. These tests shall be performed for new designs or when an existing design is modified. Modifications of designs which

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affect the flow path, lift, or performance characteristics shall be reviewed by the National Board. The manufacturer shall include in their QMS provisions for notifying the National Board of design changes.

6.3 Production Testing (for manufacturers and assemblers)

An organization may be granted permission to apply the “NB” Mark to production PRDs of designs for which initial testing has been completed, provided the following tests are successfully completed. This permission shall expire six years from the date permission to apply the “NB” Mark is granted. This permission may be renewed for six-year periods if the following tests are successfully repeated within six months of its expiration.

6.3.1 Two sample production PRDs of a size and capacity within the capability of an ASME accredited testing 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 an ASME accredited testing laboratory. The organization shall be notified of the time of the test and may have representatives present to witness the test.

6.3.3 If any of the production PRDs fails to relieve at a rate for which it is certified or fails to meet the performance requirements of the applicable ASME BPV Code, the test shall be repeated at the rate of two replacement PRDs for each PRD that failed.

6.3.4 If any of the replacement PRDs fails to meet the capacity or performance requirements of Section 6.0 of this procedure, the organization shall determine the cause of failure and shall 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 PRD. Upon the National Board’s acceptance of the corrective action, the organization shall retest in accordance with Section 6.3.1 of this procedure.

6.3.5 Pressure relief devices constructed in accordance with ASME BPV Code Section III are exempt from production test requirements. The organization shall maintain an active QMS and shall submit a renewal application verifying the design has not been modified.

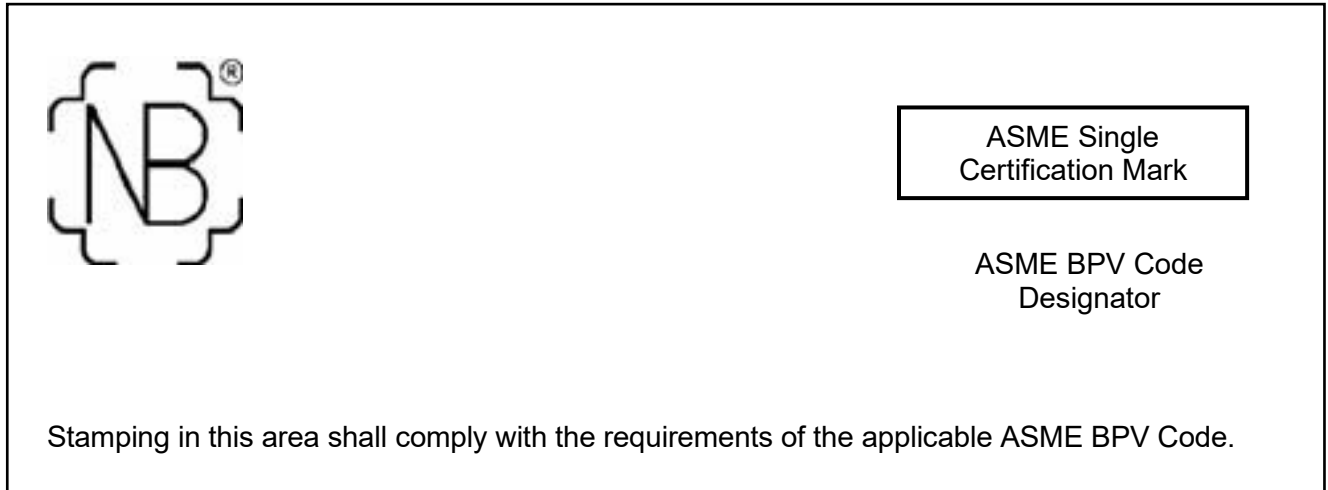
6.4 Marking

The organization shall apply the “NB” Mark to the PRD or to a nameplate attached to it. The value of relieving capacity or flow resistance marked on the PRD or attached nameplate shall be the value certified by the National Board. The arrangement of the marking shall conform to Figure 1 (shown below) and is subject to National Board acceptance. The “NB” Mark shall be applied using either the physical Symbol stamp issued by the National Board or an alternative method, such as casting, embossing, engraving, etching, dot peening, or any other process that will leave a legible and permanent image. The marking shall be the same shape and configuration as the

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National Board issued Symbol stamp. The process controls for the method of marking shall be described in the QMS and shall be accepted by the National Board.

*Figure - 1 “NB” Marking Requirements



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

6.5 Transfer of Design Certifications

A manufacturer may request the results of the initial capacity testing (described in Section 6.1 of this procedure) determined for one location to apply to a PRD type at a different location, provided the manufacturer is the same, the design is identical, and the following conditions are met:

- 6.5.1 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;
- 6.5.2 The QMS includes provisions for the control of drawings and specifications between each location;
- 6.5.3 The PRD nameplates uniquely identify the location of manufacture; and
- 6.5.4 Each location meets the production testing requirements of Section 6.3 of this procedure.

6.6 Transfer of Permission

Permission granted to an organization to apply the “NB” Mark in accordance with Section 6.3 of this procedure may be transferred to a new location when the organization relocates its facility within the same geographic area, provided that:

- 6.6.1 Ownership, personnel, and equipment are essentially unchanged;
- 6.6.2 Two PRDs per test medium are selected for testing and satisfy the performance requirements of the applicable ASME BPV Code; and

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- 6.6.3 The requirements of Sections 2.0 and 3.0 of this procedure have been met.
- 6.7 Location of Testing

All required certification testing shall be conducted at an ASME accredited testing laboratory or at a National Board accepted facility when applicable. Testing shall be supervised by ASME Authorized Observers or individuals accepted by the National Board when applicable. Testing shall be conducted in accordance with ASME Performance Test Codes (PTC) 25, *Pressure Relief Devices*, available from ASME.