



## ACCREDITATION OF “VR” REPAIR ORGANIZATIONS

**The National Board of Boiler and Pressure Vessel Inspectors**

1055 Crupper Avenue  
Columbus, Ohio 43229  
614.888.8320



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**ACCREDITATION OF “VR” REPAIR ORGANIZATIONS**

## 1.0 Scope

This document establishes the requirements for organizations seeking a National Board *Certificate of Authorization* to use the "VR" Symbol Stamp (*Certificate of Authorization*) for the repair of pressure relief valves.

1.1 Organizations seeking a *Certificate of Authorization* must have, in the English language, a written quality control system that complies with the National Board Inspection Code (NBIC) and includes the expected scope of work.

1.2 *Certificates of Authorization* may be issued to organizations whose business is to repair pressure relief valves, to manufacturers or assemblers of pressure relief valves, to Owners and Users of pressure relief valves and to other organizations that qualify in accordance with these requirements.

## 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 at least six months 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 For field-only scopes, the address of record shown on the *Certificate of Authorization* is the location from which the administrative, technical and quality aspects of the business are controlled.

## 3.0 Review of Applicant's Facility

3.1 Prior to issuance or renewal of a *Certificate of Authorization*, the repair 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. The implementation demonstration shall include, as a minimum, disassembly, inspection, repair, application of special processes, reassembly, setting, and testing of valves within the scope of the applicant's written Quality System.

3.2 The applicant shall repair and submit for verification testing one (1) valve for each American Society of Mechanical Engineers Boiler and Pressure

Vessel Code (ASME BPV Code) section (except Section III) and test fluid (steam, air/gas, liquid) which will appear on the *Certificate of Authorization*. A minimum of two (2) valves are required regardless of ASME BPV Code sections or test fluid.

- 3.3 \* When an applicant is an owner user repairing ASME BPV Code Section VIII steam service valves for their own use and intends to set those valves using air (Ref NBIC Part 4), the applicant shall submit one additional ASME BPV Code, Section VIII steam valve set on air for verification testing on steam.
- 3.4 For field-only repair scopes, the review shall encompass both the applicant's address of record and a field repair demonstration site. The demonstration site shall be representative of that typically encountered by the applicant.
- 3.5 The applicant shall have access to the National Board Pressure Relief Device Certifications publication, NB-18 (available from the National Board's Web site); the latest mandatory edition of the NBIC, all parts; and access to the latest mandatory edition of ASME BPV Code Sections the organization is including in its scope and special processes.
- 3.6 Upon notification of the review dates from the National Board, it is the responsibility of the valve repair organization to make arrangements for this review. National Board reviews of valve repair organizations may be coordinated with other reviews, when practical.
- 3.7 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.
- 3.8 When all requirements have been met, a *Certificate of Authorization* will be issued evidencing permission to use the "VR" Symbol Stamp. The *Certificate of Authorization* shall expire on the triennial anniversary date.

#### 4.0 Repairs by ASME Manufacturers

- 4.1 A manufacturer holding a valid ASME *Certificate of Authorization* for use of an ASME BPV certification mark may obtain the "VR" *Certificate of Authorization* for the repair of pressure relief valves covered by the ASME *Certificate of Authorization*. This can be accomplished without a review of the facilities provided the organization's written Quality System includes provisions which cover the scope of the repairs to be made. The written

Quality System is subject to review by the National Board. The repairs must be carried out at the same location where the ASME valves are manufactured. Unless the repaired valves are tested in the same facilities and to the same procedures as new valves, repaired valves shall be selected by a National Board representative for verification tests in accordance with Paragraph 3.2.

4.2 The initial "VR" Certificate of Authorization shall be issued to expire concurrent with the ASME Certificate of Authorization. Subsequent certificates shall be renewed upon a successful review and verification of implementation of its quality system by a National Board Representative. This review shall be performed concurrently with the ASME Certificate renewal review.

4.3 \* A manufacturer may also perform field repairs of pressure relief valves covered by the ASME Certificate of Authorization provided the provisions of NBIC Part 4, 4.8.6 are met.

## 5.0 Jurisdictional Participation

The National Board member jurisdiction in which the "VR" organization is located may participate in the review of the repair organization and the demonstration and acceptance of the repair organization's written Quality System manual.

## 6.0 Use of the "VR" Certificate of Authorization

### 6.1 Stamp Use

Each "VR" symbol stamp shall be obtained from the National Board and shall be used only by the repair organization within the scope and limitations under which it was issued. The organization's written Quality System shall provide for constant control of the "VR" Symbol Stamp. The organization shall not permit others to use the "VR" symbol stamp assigned to them.

### 6.2 Return of Stamp

Each applicant shall agree, if authorization to use the stamp is granted, that the stamp is the property of the National Board and will be promptly returned upon demand. The "VR" Symbol Stamp shall be returned to the National Board if the organization discontinues the repair of valves or if the "VR" *Certificate of Authorization* issued to such applicant has expired and no new certificate has been issued.

### 6.3 *Certificate of Authorization* Contents

The name and address of the repair organization, the scope of the certificate (shop only, field only or shop and field), the certificate number, the issue date, expiration date, the ASME BPV section (Section I, III, IV, and/or VIII valves), special processes, and test media shall be specified on the repair organization's "VR" *Certificate of Authorization*.

### 6.4 Changes in Scope, Ownership, Name, Location or Address

The National Board must be notified when an 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 organization's written Quality System and/or its implementation may be required.

### 6.5 Issuance of Multiple "VR" Symbol Stamps

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

## 7.0 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. An outline of the requirements for a written Quality System can be found in NBIC, Part 4.

## 8.0 General Requirements

The National Board "VR" certification program applies only to the repair of National Board capacity certified valves, as follows:

- 8.1 ASME BPV Code Section I valves identified with the ASME Certification mark with the V designator or the ASME "V" Code symbol stamp;
- 8.2 ASME BPV Code Section IV valves with the ASME Certification mark with the HV designator or the ASME "HV" Code symbol stamp; or
- 8.3 ASME BPV Code Section VIII valves with the ASME Certification mark with the UV designator or the ASME "UV" Code symbol stamp.

Repairs may be required for pressure relief valves that have been in service or have been exposed to environmental or other conditions such that there is reason to question their ability to perform equivalent to the standards for new valves, or if any of the valve's external adjustment seals have been broken, opened, or otherwise disturbed, regardless of the valve's age or service status.

## 9.0 Repair of Nuclear Valves

The procedures to extend the "VR" *Certificate of Authorization* and stamp to ASME BPV Code Section III valves identified with the ASME Certification mark with the NV designator or the ASME "NV" Code symbol stamp are described in the NBIC.

## 10.0 Verification Testing of Demonstration Valves

10.1 The demonstration valves must successfully complete capacity and operational verification tests at a National Board accepted testing laboratory. Alternative verification testing described in Paragraph 11.0 may also be applied. The valves shall be typical of those repaired by the organization and within the capabilities of the testing laboratory.

10.2 Tests conducted at the accepted testing laboratory shall be witnessed by a representative of the National Board. The purpose of the tests is to ensure that the repairs have been satisfactorily carried out and the function and operation of the valves meet the requirements of the ASME BPV Code section to which they were manufactured.

10.3 Valves not meeting the function or operational requirements of the ASME BPV Code section to which they were manufactured shall be considered to have failed. Replacement valves shall be repaired and selected for testing as stated above, at a rate of two (2) valves for each one (1) that failed.

10.3.1 If either or both of these replacement valves fail to meet the above criteria, the applicant shall document the cause of the noted deficiencies and actions taken to guard against future occurrence. Upon acceptance of this information by the National Board, one (1) additional valve for each replacement valve that failed shall be repaired and tested. The valve(s) shall be of the same ASME BPV Code Section, fluid and set pressure scope, as the valve previously failing to meet the test requirement.

10.3.2 Failure of this valve(s) to meet the ASME BPV Code to which the valve was manufactured shall be cause for consideration by the National Board of revocation of the "VR" *Certificate of Authorization* or acceptance of alternative corrective action.

#### 11.0 Alternative Verification Testing of Demonstration Valves

11.1 In such cases where all valves repaired by the applicant for a specified ASME Code Section or test fluid exceed the capabilities of the accepted testing laboratory, valves for that ASME BPV Code Section or test fluid shall be selected as specified in Paragraph 3.0, and a demonstration test shall be successfully performed in lieu of verification testing specified in Paragraph 10.0. The demonstration tests shall be conducted at a facility mutually agreeable to the National Board representative, the facility owner, and the applicant. The purpose of these tests is to demonstrate, in the presence of a National Board representative, that the repaired valves shall have adequate seat tightness at the maximum expected operating pressure prior to lifting, shall open within the required set pressure tolerance, operate consistently without chatter, and reclose within the required blowdown.

11.2 If a valve lift-assist device is used by the applicant to establish set pressure after repairs, this device must also be used to set the demonstration valves.

11.3 If either of these valves fail to meet the above criteria, then replacement valves shall be repaired and tested at a rate of two valves for each one that failed.

11.3.1 If either or both of these replacement valves fail to meet the above criteria, the applicant shall document the cause of the noted deficiencies and actions taken to guard against future occurrence. Upon acceptance of this information by the National Board, one (1) additional valve for each replacement valve that failed shall be repaired and tested. The valve(s) shall be of the same ASME BPV Code section, fluid, and set pressure scope as the valve previously failing to meet the test requirement.

11.3.2 Failure of this valve(s) to meet the ASME BPV Code section to which the valve was manufactured shall be cause for consideration by the National Board of revocation of the *Certificate of Authorization* or acceptance of alternative corrective action.

## 12.0 Due Process

The National Board provides procedural due process in connection with accreditation activities. There are several levels to which an aggrieved party may appeal. The process may be initiated by contacting the National Board's Executive Director.