



**APPLICANT'S GUIDE FOR IMPLEMENTATION  
DEMONSTRATIONS OF QUALITY CONTROL  
SYSTEMS  
FOR THE IN-SERVICE TESTING AND RESTORATIVE  
ADJUSTMENT OF PRESSURE RELIEF VALVES**

NB-528 *Accreditation of "T/O" Test Only Organizations* requires a review of an applicant's quality control system by a National Board representative who will submit a recommendation regarding the issuance or renewal of a National Board "T/O" certificate of authorization. This review includes a demonstration of the system's implementation, consistent with the scope of work specified in the written description of their system.

To ensure uniformity of reviews, each applicant for a new or renewed National Board "VR" certificate of authorization is responsible to carefully review the following criteria and be prepared to demonstrate the implementation of their quality control system during the National Board review.

A. **VALVES FOR VERIFICATION TESTING**

1. When the scope of work includes testing of Section I valves, at least one demonstration valve shall bear the ASME "V" Code symbol stamp or ASME Certification Mark with "V" designator, have a flanged inlet and shall be of a size and set pressure sufficient to demonstrate the upper limits of the test equipment but within the capabilities of an ASME/National Board Accepted Testing Laboratory. A threaded valve may be used *provided it can be demonstrated that the repair of threaded Section I valves is representative of your scope of work.*
2. Section VIII air/gas and steam valves shall be of adjustable blowdown design unless the applicant limits their scope of work to repair of fixed blowdown valves only. Pilot valves are also acceptable. All valves must bear the ASME "UV" Symbol Stamp or ASME Certification Mark with "UV" designator. These valves shall be of a size and set pressure which represent the valves normally repaired and within the capabilities of an ASME/National Board Accepted Testing Laboratory.

3. **To ensure valves for verification testing are within the capabilities of the selected ASME/National Board Accepted Testing Laboratory**, we request that you contact the laboratory directly. A list of the laboratories is available on the National Board web page at the following address:

<http://www.nationalboard.org/Index.aspx?pageID=142&ID=63>

## **B. QUALIFICATION OF TEST EQUIPMENT**

Documents used to satisfy the requirements of NBIC Part 3 par 4.5.1 b)2). must be collected and presented for every performance test system used to test pressure relief valves. This includes both shop test vessels as well as systems used in mobile test facilities. Test vessels which have more than one test nozzle or use more than one test fluid shall have each nozzle connection and fluid qualified as a separate system.

1. The schematic of the equipment as required by 4.5.1 b)2)a) should be of sufficient detail to describe and illustrate;
  - a) Test pressure vessel with attachment nozzles
  - b) Pressure relief valve sizes and pressures to be tested
  - c) Pressure source control valves
  - d) Isolation valves between the pressure vessel and pressure relief valve under test
  - e) Placement of pressure measuring equipment with sensing line inside diameter, length and arrangement
2. Items 4.5.1 b)2) b) through e) may be documented separately or may be described on the system schematic.
3. The portion of the documented package required by 4.5.1 b)2)f), method of qualifying, shall include a copy of the test result records (e.g. shop travelers, repair reports, accepted test laboratory results) used to support the qualification and a certifying statement by the certificate holder noting and accepting the adequacy of the comparison.

The National Board representative will determine acceptability of each demonstration during the review relative to the requirements of the applicable standard and the scope of work requested by the applicant. Should questions arise regarding these criteria, contact the National Board of Boiler and Pressure Vessel Inspectors Pressure Relief Department.