NB-7730  Capacity Certification of Pressure Relief Valves — Compressible Fluids

NB-7731  General Requirements

NB-7731.1  Capacity Certification.

*(a)* Capacity certification procedures shall be as required in [NB-7732 through NB-7737](#asme_5F_30_2D7918_2D_565606230).

*(b)* For steam at pressures over 1,500 psig (10.4 MPa) and up to 3,200 psig (2.21 MPa), the value of K used to determine the certified relieving capacity shall be multiplied by:

(U.S. Customary Units)

[](Working/equation_gfx/BPVC_III-NB_2013_master_20130715_20130919_20/eqn001.gif)

(SI Units)

[](Working/equation_gfx/BPVC_III-NB_2013_master_20130715_20130919_20/eqn002.gif)

where

P = set pressure, psig

This correction is also applicable to the certified relieving capacity as determined by the curve method. This correction shall only be used if it is 1.0 or greater.

NB-7731.2  Test Media.

*(a)* Capacity certification tests of pressure relief valves for steam service shall be conducted with dry saturated steam. For test purposes, the limits of 98% minimum quality and 20°F (10°C) maximum superheat shall apply. Capacity shall be corrected to the dry saturated condition from within these limits.

*(b)* Capacity certification tests of pressure relief valves for air and gas service shall be conducted with air, gas, or dry saturated steam.

*(c)* Demonstration of function tests shall be performed using the same fluid media to which the pressure relief valve is expected to be exposed in service.