Case N-870

Rules for the Elimination of External Surface Defects on Class 1, 2, and 3 Piping, Pumps, or Valves After Component Stamping and Prior to Completion of the N-3 Data Report

Section III, Division 1

Inquiry: When external surface defects (e.g., arc strikes, scratches, or marks) are identified on previously stamped piping, pumps, or valves prior to the Owner’s completion of the N-3 Data Report, what requirements may be used to eliminate these defects?

Reply: It is the opinion of the Committee that defects on external surfaces of previously stamped piping, pumps, or valves may be eliminated by an N or NA Certificate Holder at a location authorized by their Certificate in accordance with their Quality Assurance Program and the following requirements:

(a) The defect is eliminated via mechanical means only (e.g., buffing, grinding).

(b) The depth of the surface defect elimination does not exceed 3/8 in. (10 mm) or 10% of the thickness, whichever is less.

(c) It is verified that elimination of the defect has not reduced the thickness of the section below that required by Article NB/NC/ND-3000, and that Design Specification requirements were satisfied.

(d) Except for castings, the elimination of the surface defect is performed in accordance with the requirements of NB/NC/ND-2538, NB/NC/ND-2548, NB/NC/ND-2558, NB/NC/ND-2568 for the applicable product form, or NB/NC/ND-4452 for weld metal defects, except that repair by welding is not permitted.

(e) For castings, surface defects shall be removed by grinding or machining provided the requirements of (1) and (2) below are met.

1. The depression, after defect elimination, is blended uniformly into the surrounding surface.

2. After defect elimination, the area is examined by the magnetic particle method in accordance with NB/NC/ND-2577 or the liquid penetrant method in accordance with NB/NC/ND-2576 to assure that the defect has been removed or reduced to an imperfection of acceptable size.

(f) The elimination is documented by the N or NA Certificate Holder within the Remarks section of the N-5 Data Report for the assembly or installation that included the component.

(g) The N-5 Data Report shall identify this Code Case. Revision of completed N-5 Data Reports to identify this Code Case is permitted.

Concluding paragraph was inadvertently published between paragraph (e) and (f). This errata is to correct the location, see original proposal file on the next 2 pages.
Case N-XXX

Rules for the Elimination of External Surface Defects on Class 1, 2, and 3 Piping, Pumps, or Valves after component stamping and prior to completion of the N-3 Data Report.

Section III, Division 1

Inquiry: When external surface defects (e.g., arc strikes, scratches, or marks) are identified on previously stamped piping, pumps, or valves prior to the Owner’s completion of the N-3 Data Report, what requirements may be used to eliminate these defects?

Reply: It is the opinion of the committee that defects on external surfaces of previously stamped piping, pumps, or valves may be eliminated by an N or NA Certificate Holder at a location authorized by their Certificate in accordance with their Quality Assurance Program and the following requirements:

(a) The defect is eliminated via mechanical means only (e.g., buffing, grinding).

(b) The depth of the surface defect elimination does not exceed 3/8” (10 mm) or 10% of the thickness, whichever is less.

(c) It is verified that elimination of the defect has not reduced the thickness of the section below that required by NB/NC/ND-3000, and that Design Specification requirements were satisfied.

(d) Except for castings, the elimination of the surface defect is performed in accordance with the requirements of NB/NC/ND-2538, NB/NC/ND-2548, NB/NC/ND-2558, NB/NC/ND-2568 for the applicable product form, or NB/NC/ND-4452 for weld metal defects, except that repair by welding is not permitted.
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(f) The elimination is documented by the N or NA Certificate Holder within the Remarks section of the N-5 Data Report for the assembly or installation that included the component.

(g) The N-5 Data Report shall identify this Code Case. Revision of completed N-5 Data Reports to identify this Code Case is permitted.

Component or system pressure tests required by NB/NC/ND-6000 need not be repeated after the elimination of the surface defect.