Closure Weld ASME Code Requirements

Phase

ASME B31.3

345.2.3 Special Provisions for Testing
(c) Closure Welds. The final weld connecting piping systems or components that have been successfully tested in accordance with para. 345 need not be leak tested provided the weld is examined in-process in accordance with para. 344.7 and passes with 100% radiographic examination in accordance with para. 344.5 or 100% ultrasonic examination in accordance with para. 344.6.

344.7 In-Process Examination

344.7.1 Definition. In-process examination comprises examination of the following, as applicable:
(a) joint preparation and cleanliness
(b) preheating
(c) fit-up, joint clearance, and internal alignment prior to joining
(d) variables specified by the joining procedure, including filler material
(1) (for welding) position and electrode
(2) (for brazing) position, flux, brazing temperature, proper wetting, and capillary action
(e) (for welding) condition of the root pass after cleaning — external and, where accessible, internal — aided by liquid penetrant or magnetic particle examination when specified in the engineering design
(f) (for welding) slag removal and weld condition between passes
(g) appearance of the finished joint

344.7.2 Method. The examination is visual, in accordance with para. 344.2, unless additional methods are specified in the engineering design.

344.2 Visual Examination

344.2.1 Definition. Visual examination is observation of the portion of components, joints, and other piping elements that are or can be exposed to view before, during, or after manufacture, fabrication, assembly, erection, examination, or testing. This examination includes verification of Code and engineering design requirements for materials, components, dimensions, joint preparation, alignment, welding, bonding, brazing, bolting, threading, or other joining method, supports, assembly, and erection.

344.2.2 Method. Visual examination shall be performed in accordance with the BPV Code, Section V, Article 9. Records of individual visual examinations are not required, except for those of in-process examination as specified in para. 344.7.

342 EXAMINATION PERSONNEL

342.1 Personnel Qualification and Certification Personnel performing nondestructive examination to the requirements of this Code shall be qualified and certified for the method to be utilized following a procedure as described in BPV Code, Section V, Article 1, T-120(e) or (f).

ASME Section V

T-922 PERSONNEL REQUIREMENTS

The user of this Article shall be responsible for assigning qualified personnel to perform visual examinations to the requirements of this Article. At the option of the organization, he may maintain one certification for each product, or several separate signed records based on the area or type of work, or both combined. Where impractical to use specialized visual examination personnel, knowledgeable and trained personnel, having limited qualifications, may be used to perform specific examinations, and to sign the report forms. Personnel performing examinations shall be qualified in accordance with requirements of the referencing Code Section.

T-120 General

(e) For those documents that directly reference this Article for the qualification of NDE personnel, the qualification shall be in accordance with their employer's written practice which shall be in accordance with one of the following documents:
(1) SNT-TC-1A,3 Personnel Qualification and Certification in Nondestructive Testing; or
(2) ANSI/ASNT CP-189,3 ASNT Standard for Qualification and Certification of Nondestructive Testing Personnel
(f) National or international central certification programs, such as the ASNT Central Certification Program (ACCP) or ISO 9712:2012-based programs, may be alternatively used to fulfill the training, experience, and examination requirements of the documents listed in (e) as specified in the employer's written practice.