**ASME B31.3 Other Unlisted Component Evaluation**

Does component fall into the 304.1\* Straight Pipe, 304.2 Curved and Mitered Segments of Pipe, 304.3 Branch Connections, 304.4 Closures, 304.5 Pressure Design of Flanges and Blanks, or 304.6 Reducers? If so evaluate per that paragraph.

Does the component fall into 304.7 Pressure Design of Other Components? Are you evaluating the pressure system to the requirements of NASME-1-X? If yes, go to page 2, and evaluate per NASME.

Does component fall into 304.7.2? If so evaluate per the following:

|  |  |  |
| --- | --- | --- |
| **Item** | **Requirement** | **Completed (attached)** |
| A | Extensive, successful service experience under comparable conditions with similarly proportioned components of the same or like material. |  |
| B | Experimental stress analysis, such as described in the BPV Code, Section VIII, Division 2, Annex 5.F.  |  |
| C | Proof test in accordance with ASME B16.9, MSS SP-97, or Section VIII, Division 1, UG-101. |  |
| D | Detailed stress analysis (e.g., finite element method) with results evaluated as described in Section VIII, Division 2, Part 5. The basic allowable stress from Table A-1 shall be used in place of the allowable stress, S, in Division 2 where applicable. At design temperatures in the creep range, additional considerations beyond the scope of Division 2 may be necessary. |  |

\* Note: Code references herein are based on the 2014 edition. Modify as necessary to align with newer editions.

Evaluated By: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_

CPSO/SMPO Designee: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_

From NASME-1-C (as an example; -1-A, 1-B, and 1-D similar):

Use listed component if available, but if none are available manufacturer’s ratings are acceptable for the service conditions temperature, pressure, compatibility, etc.

Use reputable manufacturers’ published ratings. A reputable manufacturers’ listing will be maintain by Engineering Services.

Note: Institutional Evaluated Suppliers List (IESL) is not necessarily a listing of reputable manufacturers.

Use reputable manufacturers’ published ratings. A reputable manufacturers’ listing will be maintain on the Engineering Services.

The “Reputable Manufacturer’s List” is available at the following address:

<http://int.lanl.gov/org/padops/adnhho/engineering-services/pressure-protection-program/_assets/docs/reputable-manufacturers.xlsx>

The following information is required for entry in the “Reputable Manufacturer’s List” and an electronic Excel format is preferred for quick entry.

Component Type

Manufacturer

Specification

Model Number

MAWP

Recommending User

Pressure System ID

Pressure System Fluid as Used

Size or Range

Comments

Date,

Code Stamp