

September 21, 1977

Mr. Gunter Schlicht
Pipetech, Inc.
One Northwood Drive #5
Orinda, California 94563

Dear Mr. Schlicht:

Your letter of July 7, 1977, requests an interpretation of the applicable requirements of Parts 192 and 195 relating to the design and testing of pipeline flanges. Your specific question is: are the requirements of the ASME Boiler and Pressure Vessel Code, Section VIII, Division 1 (Boiler Code) considered as an equivalent as intended in Section 192.147 to the referenced specifications for flanges in Part 192? Also, does the Boiler Code meet the requirements for flanges of Section 195.126 in Part 195?

The Boiler Code, which is referenced in both Parts 192 and 195, and the ANSI B16.5 and MSS-SP-44 specifications that are referenced in Part 192 are intended for the conventional design flanges that would be manufactured by casting or forging rather than the convoluted design that would be folded into shape.

In Appendix II, Paragraphs UA-45 thru UA-59, inclusive, of the Boiler Code, the procedure for designing flanges for manufacture by casting or forging is set forth. It is suggested in this Appendix that if the procedure set forth is not appropriate for the design, then in order to establish allowable working pressures, the flange should be proof tested under the provisions of the Boiler Code, Section UG-101, Proof Tests, to establish maximum allowable working pressure. The testing required by UG-101, that is applicable to all pressure vessels, is more severe and thorough than that required by any of the other referenced specifications for flanges.

It is our opinion that a detailed design and stress analysis supported by a proof test under the provisions of UG-101 of the Boiler Code provides the equivalent level of safety intended by Section 192.147.

Section 195.126 states, with respect to a flange connection, that the "connection as a unit must be suitable for the service in which it is to be used." It does not provide any standard or test method to be used to determine the suitability.

It is our opinion that the stress analysis and Boiler Code testing under the provision of UG-101 would be sufficient to determine whether flange connections are suitable under Section 195.126.

Sincerely,

Cesar DeLeon
Acting Director
Office of Pipeline
Safety Operations

July 7, 1977

Mr. Cesar DeLeon MTP-1
Acting Director
Office of Pipeline Safety Operations
Department of Transportation
Washington, D.C. 20590

Subject: Interpretation of Code Title 49
Parts 192 and 195 Relative to
Convolute Pipe Flanges

Dear Mr. DeLeon:

On June 30, 1977, I met with Mr. Paul J. Cory relative to the acceptance of Syspac, Inc., Orinda, Ca. and Nibco, Inc., Elkhart, Indiana, pipe flanges for the jurisdictional areas as defined in your Regulations for the Transportation of Natural and Other Gases and Liquids by Pipeline, Title 49, Parts 192 and 195 respectively.

Specifically Part 192.147 of Title 49 - Flanges and Flange Accessories - states that flanges must meet minimum requirements of ANSI B16.5 or the equivalent which we interpret to mean flange design per ASME Section VIII, Division 1 of the Pressure Vessel Code.

Our pipe flanges meet the requirements of Section VIII (see attached documentation). In order to provide flange users with a uniform statement and code clarification we request respectfully your interpretation of Title 49, Parts 192 and 195 in view of Section VIII flange design criteria.

We trust that the enclosed material is all encompassing for your acceptance review. Your response at your earliest convenience will be appreciated. In essence, we are hopeful of receiving from your office a statement that clearly delineates that our convolute flanges are acceptable in lieu of ANSI B16.5 flanges as long as Section VIII criteria is being met.

Awaiting your response we remain,

Yours truly,

PIPETECH, INC.

Gunter Schlicht