

PI-70-0101

June 30, 1970

Mr. C. C. McClure
Williams Brothers Engineering Co.
National Bank of Tulsa Building
Tulsa, Oklahoma 72103

Dear Mr. McClure:

This is in response to your letter of June 5, 1970, requesting interpretation of Section 195.124 dealing with the design of closures.

The section in question states that the pressure rating of the closure must be at least equal to the pressure rating of the pipe to which it is attached. Another way to state this would be that the pressure used in the design of the closure, on which the pressure rating of the closure is based, must be at least equal to the design pressure of the pipe to which it is attached.

In the examples set forth in your letter of June 5, 1970, the closure is rated at 1440 psig. If the design pressure of the pipeline is 1400 psig, then both your example b and c, would meet the intent of the regulations, since in both examples, the design pressure of the pipe is 1400 psig and the closure rating is "at least equal" to this pressure.

Please contact me if I can be of any further assistance in this matter.

Sincerely,
Signed
Frank E. Fulton
Chief, Technical Division
Office of Pipeline Safety

Williams Brothers Engineering Co.
National Bank of Tulsa Building
Tulsa, Oklahoma 72103

June 5, 1970

U. S. Department of Transportation
Hazardous Materials Regulation Board
400 6th Street N. W.
Washington, D. C. 20590

Re: Title 49, Part 195, Subpart C, Subsection 195.126

Gentlemen:

We have two hazardous liquid pipelines in the design stage. The referenced subsection of the regulation states:

"Each closure ----- , and must have pressure and temperature ratings at least equal to those of the pipe to which the closure is attached." We are unsure of the basis of equality. The following examples explain the different bases of equality:

- | | |
|--|-------------|
| a. Maximum operating pressure of the pipeline | -1400 psig |
| Closure rating at 100° F in accordance with | |
| ASME Code, Section VIII, 1968 | -1440 psig |
| 14-Inch O.D., .500" WT API 5LX-X52, | |
| electric resistance welded pipe using a | |
| 50 percent design factor, 100 F | -1857psig |
| (This thickness will comply with ANSI Steel | |
| Pipe Design Formula) | |
|
 | |
| b. Maximum operating pressure of the pipeline | -1400 psig |
| Closure rating at 100°F in accordance with | |
| ASME Code, Section VIII, 1968 | -1440 psig |
| 14-inch O.D., .6719" WT, API 5LX-X52 | |
| Electric resistance welded pipe | -1400 psig |
| (This thickness is in accordance with ASME | |
| Code, Section VIII, 1968 using the following values: | |
|
 | |
| P = 1400 psig | |
| R = 6.3821 inches | |
| S = 66,000 x 1/4 = 16,500 psi | |
| E = .85) | |
|
 | |
| c. Maximum operating pressure of pipeline | - 1400 psig |
| Closure rating at 100°F in accordance with | |
| ASME Code, Section VIII, 1968 | - 1440 psig |
| 14-Inch O.D. , .3769" WT, Electric | |
| resistance welded pipe | - 1400 psig |

(This is the minimum pipe wall thickness allowed by the ANSI Code for Type C construction.)

Please advise us as soon as possible which of these conditions meet the intent of the regulation.

Your cooperation is appreciated.

Very truly yours,
WILLIAMS BROTHERS ENGINEERING COMPANY
C.C. McClure
Senior Engineer