

Mr. R. C. Roland  
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Port Office Box 511  
Amarillo, Texas 79105

Dear Mr. Roland:

This is in further response to your letter dated July 11, 1972, regarding operating pressure and testing requirements. Your sample problem is for a Class 1 gas transmission line constructed of 0.250" wall, 8 5/8" O.D., API 5L, Gr. B pipe with an operating pressure of 500 psig, this pressure is less than 30 percent of SMYS.

The correct procedure in analyzing this pipe is the following:

1. As set forth in Section 192.619, the operating pressure of 500 psig is established by  $500 \times 1.1 = 650$  psig test pressure.
2. The 560 psig test pressure is used in meeting the leak test requirements of Section 192.507.

Your inquiry indicates that you have two choices for operating this pipeline at 500 psig:

1. Test to a pressure of 550 psig; or
2. After testing to an arbitrary pressure, which is 75 psig in your letter, (thereby establishing the maximum operating pressure of  $75/1.1 = 68$  psig) uprate the line according to Section 192.557(c) by raising the gas pressure in four increments of 106.25 pounds each.

This is not correct. Section 192.557(c) does not preclude having to comply with Section 192.619 (a)(2) which restricts operating pressures based on the post installation test. Therefore, the pipe in your sample problem could not be uprated above the established maximum allowable operating pressure of 68 psig without another test. The uprating requirements of Subpart K are primarily intended for use with clear pipelines that are restricted by past actual operating pressures as provided in Section 192.619(a)(3).

With regards to your second question, you ask if Section 192.241(b)(2) relieves an operator from having to X-ray the tie-in welds of a replacement pipe as set forth in Section 192.719(a)(2).

No, Section 192.241(b)(2) does not relieve an operator from having to X-ray the tie-in welds of a replacement pipe as set forth in Section 192.719(a)(2). Section 192.719(a)(2) specifically sets forth the requirements for testing of replacement pipe which include the non-destructive tests meeting the requirements of Section 192.243. The option of meeting the requirements of Section 192.241 as set forth in Section 192.719(b) is only for repairs made by welding in accordance with Sections 192.713, 192.715 and 192.717, not for repairs made by replacement of the pipe.

We trust that this has answered your specific questions. If we can be of further service, please let us know.

Sincerely,

/signed/

Joseph C. Caldwell  
Director  
Office of Pipeline Safety

Director, Office of Pipeline Safety  
Department of Transportation  
Washington, D.C. 20590

Sirs:

Would you please clarify several points of confusion regarding the Title 49, Part 192, Transportation of Natural and Other Gases by Pipeline: Minimum Federal Safety Standards. Depending upon what section is applied, it is possible to arrive at different requirements for the same application.

For example: Assume a Class I gas transmission line constructed of .250" wall, 8 5/8" O.D., API 5L, Gr. B pipe with an operating pressure of 500 psig, this pressure is less than 30% of SMYS.

Now I wish to conform to Section J, of the code regarding the testing of pipelines. It appears that Paragraph 192.507 applies to my case. According to this paragraph, I will have tested my pipeline if I hydrostatically test it to 75 psig and hold the test for one hour.

My pipeline is now tested in accordance with Paragraph 192.507.

Because I now intend to operate my pipeline in accordance with the code, I now look to Section L - Operations.

The table in Paragraph 192.619 limits my operation of the pipeline to pressures below  $75/1.1 = 68$  psig.

If this is the correct interpretation, then I have a correctly tested line according to Paragraph 192.507 but one in which my limiting pressure is determined by paragraph 192.619.

It now follows that I have two choices for operating my pipeline at 500 psig:

- (1) Retest to a pressure of 550 psig or,
- (2) After testing to 75 psig - uprate my line according to Paragraph 192.557(c) by raising the gas pressure in four increments of 106.25 pounds each.

If the above assumptions are correct, then it appears that the testing of a pipeline at above the operating pressure is never necessary because of the possibility of uprating a new line.

Another current point of confusion arises concerning pipeline maintenance.

Assume that a section of 8 5/8" O.D. pipe, 600' long is to be replaced because of corrosion. The line is located six miles from the nearest town in a Class I location.

If paragraph 192.719 is used as the criteria for testing and the pipe joints are previously strength tested, some readers contend that 192.719(a)(2) requires, without any exception, that the tie-in welds must be x-rayed - if they are not strength tested.

Other readers, however, believe that because of Section 192.719(a)(2)'s reference to Section 192.717 and this section's reference to 192.241(b)(2), that it is possible not to test the tie-in welds because of the limited number and the impracticalness of using x-ray.

What is the Department's interpretation of the requirements?

Your prompt consideration will be appreciated.

Your very truly,

R. C. Roland  
Jr. Engineer