

October 20, 1970

Mr. E. R. Butler, Vice President
Operations - Engineering
Mississippi Valley Gas Company
Post Office Box 3348
Jackson, Mississippi 39207

Dear Mr. Butler:

In response to your letter of September 16, 1970, asking for interpretations and clarification of six areas of the regulations under Title 49, Part 192, Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards, we offer the following comments:

1. 192.195(a) says that if you have a system that could be overpressured, you must have pressure relieving or pressure limiting devices that meet the requirements of 192.199 and 192.201.

192.195(b)(1) means that in sizing the regulator's feeding into distribution systems you shall consider the extremes (both high and low) of both the inlet and outlet pressures and provide sufficient capacity to take care of peak load conditions and yet not be so oversized that the regulator cannot properly limit the downstream pressure to the maximum allowable operating pressure. When we say "and that could be activated in the event of failure of some portion of the system; and (2) be designed so as to prevent accidental overpressuring, we have in mind either a series or monitor type of regulator set where if one of the two or more regulators in that series should fail, the remaining regulator or regulators will limit the pressure to a maximum of 1.1x to the maximum allowable operating pressure; or if a single cut in pressure is used, a relief valve, an automatic cutoff valve, or a similar device that will limit the pressure to like limits shall be provided.

2. 192.201(b). You have asked us to define or describe a single run of lesser capacity regulators or compressors.

It is sometimes desirable to install parallel regulators, with two or more regulators set to take the upstream pressure, and set to cut to a distribution pressure downstream that is less than the maximum allowable operating pressure. This is often required from both a safety standpoint and an operating standpoint, in order to assure that the pressure on a distribution system is maintained, and also because the gas flow required may vary widely. These regulators might not be of the same capacities. What is intended is that the relief capacity or other over-pressure

protection should be sufficient to limit the pressure on the system if any one of the regulators should fail. The same would apply to parallel installations of gas compressors. Of course, when a single cut is made with only one regulator at a station, the relief valve must have capacity for total failure of that regulator.

3. 192.273(c). You have asked whether it was intended that 100 percent of joints made by means other than welding must be inspected, or whether a spot check would be sufficient, as is provided for welded joints.

The intent is for 100 percent inspection, but this does not state how or by whom. For example, if a pipe fitter makes up a meter and regulator set on a domestic customer service, at least a soap bubble check would be appropriate. If a crew installs a line valve, the foreman should make certain that no excessive strain on the valve might make it inoperable, and that flanges, if used, are assembled properly and are gas tight.

4. "192.371 provides that each service line to be operated at less than 100 psig must be designed for a minimum of 100 psig. Is this intended to apply to the steel pipe only, or does this minimum operating pressure also apply to service line valves and other fittings?"

As now written this would not permit the use of service line valves or other fittings rated at less than 100 psig; however, we are now considering a change in the regulations before the effective date that would make the 100 psig apply only to the service line pipe.

5. "192.503(a)(1) provides that a new or replacement segment of pipeline must be tested in accordance with Subpart J to substantiate the proposed maximum allowable operating pressure. 192.505(e) provides that for steel pipelines to operate at a hoop stress of 30 percent or more of SMYS, fabricated units and short sections of pipe may be given a preinstallation test if a postinstallation test is impractical. 192.507 and 192.509 apply to pipelines to operate at a hoop stress less than 30 percent of SMYS and would require only a leak test and not a strength test. These make no new reference to a test requirement for fabricated units and short sections of pipe. Does the omission of reference to these items imply that they may be tested with soap suds while operating at normal operating pressure?"

Paragraph (e) is an exception to the other testing requirements of Section 192.505 and provides an alternative method of testing prefabricated units and short sections of pipe. Since no such exception is provided in Sections 192.507 and 192.509, these items would have to be leak and strength tested in the same manner as the

rest of the segment of pipeline. To the extent that tie-in welds were involved, the overall exception contained in Section 192.503(d) would be applicable, and here the soap bubble test might be useful. However, it should be noted that if the pipe is to be operated at a stress level of more than 20 percent of SMYS, each of these tie-in welds must be nondestructively tested under Section 192.243(d)(4).

6. "192.511(b) states that each segment of service line (other than plastic) intended to be operated at a pressure of not less than 1 psig, but not more than 40 psig, must be given a leak test at a pressure of not less than 50 psig. Does the 50-psig test qualify the service line for 40-psig operation in all location classes, or is the maximum allowable operating pressure determined in accordance with 192.619 entitled 'Maximum allowable operating pressures: steel or plastic pipelines'?"

As stated, the requirements of 192.511(b) are a minimum, and in Classes 3 and 4 locations, to qualify the service line for 40 psig it would be necessary to test at 60 psig or more as required by 192.619.

Sincerely yours,

Joseph C. Caldwell
Director, Acting
Office of Pipeline Safety