

PI-03-0102

U.S. Department of Transportation
Research and Special Programs Administration

June 11, 2003

Mr. Michael Comstock
Utility Compliance Coordinator
City of Mesa
640 North Mesa Drive P.O. Box 1466
Mesa, AZ 85211-1466

Dear Mr. Comstock:

This is in response to your September 19, 2001, request for an interpretation of the distribution valve maintenance regulation at 49 CFR 192.747. You ask whether a "gas valve used to control blowing or escaping natural gas becomes a 'Key Valve,' and as a 'Key Valve,' requires special treatment for the life of the valve."

Section 192.747, *Valve Maintenance: Distribution Systems*, states that "[e]ach valve, the use of which may be necessary for the safe operation of a distribution system, must be checked and serviced at intervals not exceeding 15 months, but at least once each calendar year."

This section addresses the maintenance of valves which may be necessary to safely operate the distribution system and to isolate parts of the system as necessary. In response to this regulation and safe operating practices, the City of Mesa has designated many, but not all, distribution system valves as "Key Valves."

Mere operation of a particular valve during an emergency does not automatically elevate it to "Key Valve" status within the meaning of § 192.747. Many valves may be shut during an emergency, including designated "Key Valves," valves on service lines, valves at the meter assembly, and even some mainline valves not designated as "Key Valves." Not all of these valves, upon investigation, would necessarily be shown to be "necessary for the safe operation of the system."

The question to be addressed is whether a particular valve is necessary on an ongoing basis to safely operate the distribution system. This question must be addressed on a case by case basis by the distribution company and its regulatory agencies. Therefore, a "gas valve used to control blowing or escaping natural gas at an accident site" does not automatically become a "Key Valve."

If you have any further questions about the pipeline safety regulations, please contact me at (202) 366-4565.

Sincerely,
Richard D. Huriaux, P.E.
Manager, Regulations
Office of Pipeline Safety

City of Mesa
Utilities Department
Regulatory Affairs Section
640 North Mesa Drive
P.O. Box 1466
Mesa, Arizona 85211-1466

October 30, 2002

Richard D. Hurlaux
Manager, Regulations
Office of Pipeline Safety
U.S. Department of Transportation
400 Seventh Street, S.W.
Washington, D.C. 20590

RE: Interpretation Request, Valve Maintenance: Distribution Systems 192.747

Dear Mr. Hurlaux:

On September 19, 2001, the City of Mesa, Arizona, submitted to your office a request for interpretation on the above referenced matter. To date, the City has not received a response to the interpretation request.

I have enclosed a copy of the original interpretation request for your review and information. If you have any questions or a need for further information, please feel free to call me at 480-644-2490 or contact me at:

Michael.Comstock@cimesa.az.us.

Sincerely,
Michael Comstock
Regulatory Affairs Coordinator
City of Mesa, Arizona

City of Mesa
Utilities Department
Regulatory Affairs Section
640 North Mesa Drive
P.O. Box 1466
Mesa, Arizona 85211-1466

September 19, 2001

Richard D. Huriaux
Manager, Regulations
Office of Pipeline Safety
U.S. Department of Transportation
400 Seventh Street, S.W.
Washington, D.C. 20590

RE: Interpretation Request, Valve Maintenance: Distribution Systems 192.747

Dear Mr. Huriaux:

The City of Mesa, Arizona (COM) is requesting an interpretation from the Office of Pipeline Safety on Title 49 Code of Federal Regulations (49CFR), Part 192, Subpart 747, Valve Maintenance: Distribution Systems.

Background

As do all Natural Gas Utilities, COM installs natural gas valves within its natural gas distribution system to control the flow of natural gas under a variety of situations-- operations, maintenance, and/or emergency response procedures (49 CFR 192.181). The natural gas system in Mesa is divided into three distinct regimes of operation—high pressure, intermediate pressure, and low pressure delivery. We designate our "High Pressure System" (HP) as comprised of all pipeline facilities that operate at a pressure greater than 60 psig. This includes the 150 psig and 250 psig loops that maintain a high pressure feed to the district regulating stations. We designate our "Intermediate Pressure System" (IP) (usually installed with polyethylene plastic) as pipeline facilities that operate at 60 psig or less. This system includes all delivery of natural gas to a customer service line regulator where the natural gas pressure is further reduced to the customer delivery pressures (usually seven inches of water column). The "Low Pressure System" (LP) operates at delivery pressures. This system is very limited and includes only the pipeline facilities downstream of the customer's regulator, to the outlet swivel of the gas meter.

The City of Mesa has identified a number of distribution system valves as "Key Valves" in accordance with 49 CFR 192.747 (See Attachment B, City of Mesa, Operations, Maintenance, Emergency Response and Construction Practices Manual, Part 2, Subpart 1.1). These key valves are maintained as required in 49 CFR 192.747.

Attachment A is a typical new subdivision map (plat), which shows the types of natural gas valves installed, their location on the pipeline facilities, the size of natural gas line the valves etc. The HP system is designated in yellow highlight, the LP in blue. No low pressure is shown on this drawing.

Current Situation

COM believes there should be valves in the natural gas system designated for system isolation and be maintained every 12 months (An isolation plan). We also believe the best course of action, and often the safest and most expedient method of controlling a natural gas emergency, is the use of natural gas valves.

Currently, the State of Arizona's Corporation Commission has requested Mesa to:

- Each time a valve is used to control a natural gas emergency, regardless of its designation, "operating or emergency" [192.181(0)], it must be added to the City of Mesa's Key Valve List for continued annual maintenance for the life of the valve.

In other words, any valve that is used during an emergency must then become a "Key Valve" and remain a key valve for the life of the system.

Mesa believes that it is not the intent of 49 CFR Part 192, for ALL valves in a distribution system (a mainline valve, a service line valve, or a metercock) to be designated as a "key gas valve" just because they happened to be used to control escaping natural gas. Some valves in a distribution system may be used only once and never be used again. (Please note the following two scenarios).

1. At the start of subdivision construction, the probability for damage to a natural gas main or service line is high, and a valve may be used to isolate a hit line rather than squeezing off a plastic main or service line. Simply stated, it is safer to isolate a blowing gas line via a valve then jumping into a trench and squeezing off the gas line. This is especially useful when there are few customers affected by the valve closure. This situation would cause all valves used at that time to be classified as "Key" Valves even though, from that point on, they may never be operated again, except as part of a normal valve maintenance program.
2. A recent fire occurred at a local supermarket behind the building. Several young boys started the fire by lighting wood pallets that were resting against the gas meter. The meter eventually melted and the gas ignited. The City's crews responded promptly and shut off a nearby gas valve on the service line feeding the supermarket complex. Previously the valve was not considered a key valve.

Under the current interpretation, that valve, which was used just once, will remain a key valve forever. We do not believe it was ever the intent of the code to consider every valve a key valve and would like your interpretation.

Request of Interpretation

Considering the above issue and the examples provided: Does a gas valve used to control blowing or escaping natural gas become a key valve forever, and as a key valve, require special treatment under 49 CFR 192.747 for the life of the valve.

Thank you in advance for your consideration in this matter. If you have any questions regarding this request, please feel free to call me at 480-644-2490 or contact me at: Michael_Comstock@ci.mesa.az.us.

Sincerely,
Michael Comstock
Utility Compliance Coordinator
City of Mesa, Arizona