



U.S. Department
of Transportation

1200 New Jersey Avenue, SE
Washington, DC 20590

**Pipeline and Hazardous
Materials Safety Administration**

July 13, 2021

Mr. Eric Villa
Program Manager
Pipeline Safety Section
Arizona Corporation Commission
1300 W. Washington Street
Phoenix, AZ 85007-2996

Dear Mr. Villa:

In a letter to the Pipeline and Hazardous Materials Safety Administration (PHMSA) dated October 22, 2019, the Arizona Corporation Commission's Office of Pipeline Safety (AZOPS) requested an interpretation of 49 Code of Federal Regulations (CFR) Part 192. Specifically, you requested an interpretation of the requirements of § 192.739 regarding the inspection and testing of pressure limiting and regulating stations, including relief devices, for high pressure pipeline distribution systems.¹

You stated that during an annual audit of an operator of a high-pressure gas distribution system, records of relief device inspections revealed that the set pressure at which the relief device starts to open was in excess of the system's maximum allowable operating pressure (MAOP). You also observed that the set point of the monitor regulator was higher than the downstream system's MAOP at numerous worker/monitor stations.²

Your letter raised the concern that, during an emergency pressure-control occurrence, should the worker regulator fail and the monitor regulator activate and take-over pressure control, there would be no remaining overpressure protection as required by § 192.195 for the duration of these operating conditions.³ You referenced an earlier PHMSA interpretation (PI-14-0016) that stated that overpressure conditions are only allowed for the time taken to activate the overpressure protection device and not for long-term or frequently-occurring normal operating conditions.

¹ On February 20, 2020, AZOPS clarified that its inquiry related to a high-pressure distribution system.

² The operator's written procedures state that the monitor regulator shall achieve a lockup pressure that shall not exceed the MAOP plus allowable buildup as defined in § 192.201(a)(2). The operator's procedures further noted that, "[t]he allowance above MAOP is necessary for the safe and reliable operation of the station, recognizing that a monitor regulator, if set at a pressure too close to the worker regulator set point, may interfere with the normal operation of the worker regulator. Without the allowance, a worker regulator would be unable to operate at its set point(MAOP)."

³ 49 C.F.R. § 192.195 requires protection against accidental overpressuring.

The Pipeline and Hazardous Materials Safety Administration, Office of Pipeline Safety provides written clarifications of the Regulations (49 CFR Parts 190-199) in the form of interpretation letters. These letters reflect the agency's current application of the regulations to the specific facts presented by the person requesting the clarification. Interpretations are not generally applicable, do not create legally-enforceable rights or obligations, and are provided to help the specific requestor understand how to comply with the regulations.

Therefore, immediate response by the operator either to shut down or reduce the operating pressure to normal operating conditions is required under Part 192.

You stated that in the case of the worker/monitor stations that supply a distribution system with more than one source of supply, the electronic pressure recording (EPR) device at each regulating station is read once each month, so if there are any indications that the worker regulator failed, then the overpressure condition may continue for up to 30 days before corrective action is taken. When EPR units are not required under § 192.741, then a failed worker regulator may not be discovered for up to 15 months.⁴

You believe that any activation of an overpressure protection device requires an immediate response at the time of occurrence, not the time of discovery. You request clarification on the following questions for a **high-pressure distribution pipeline system**:

Question 1 - Does the relief valve set point at a pressure above the MAOP violate §§ 192.739(a)(3) and 192.619?

PHMSA Response – No, setting a relief valve set-point at a pressure higher than MAOP does not violate §§ 192.619 or 192.739(a)(3) if the operator meets the applicable relief valve set pressures for MAOP, as defined in either §§ 192.201 or 192.739, for the maximum relief valve set pressures above MAOP. Note that § 192.619 prohibits operating a segment of steel or plastic pipeline at a pressure that exceeds a pipeline's MAOP during normal operation.

Question 2 - Does a monitor regulator set-point above the downstream MAOP violate §§ 192.739(a)(3) and 192.619?

PHMSA Response – No, a monitor regulator set-point above the downstream MAOP does not violate §§ 192.739(a)(3) and 192.619 if the operator installs and operates pressure-relieving or pressure-limiting devices that meet the requirements of §§ 192.195, 192.197, 192.199, 192.201 and 192.739, and does not exceed the pipeline's MAOP during normal operation.

Question 3 - Does the activation of an overpressure protection device require an immediate response at the time of occurrence or at the time of discovery?

PHMSA Response –Overpressure control devices must be designed, operated and maintained in accordance with all the applicable sections of Part 192, including §§ 192.195, 192.197, 192.199, 192.201, and 192.739, as they relate to high-pressure gas distribution systems. For example, operators must determine that these pressure-limiting devices are in good mechanical condition and are adequate from the standpoint of capacity and reliability of operation for the service in which they are employed.

⁴ See 49 C.F.R. § 192.739(a) (requiring operators to conduct inspections of each pressure limiting station, relief device and pressure regulating station and its equipment at least once each calendar year, with intervals not exceeding 15 months).

Section 192.739(a)(1) & (2); *see also* § 192.605(b)(10)(iii) (requiring operators to prepare and follow written procedures for systemic and routine testing and inspection of pressure limiting equipment to determine that it is in safe operating condition and has adequate capacity); *see also* § 192.615 (requiring written emergency plans for immediate response to gas pipeline emergencies). In order to fulfill these regulatory obligations, operators must respond to these overpressure events at the time of discovery. If operators are not timely responding to these events, then it is unclear how they can confirm that this critical equipment is operating as intended, pursuant to the various regulatory requirements set forth above.

Question 4 - Are operators required to provide overpressure protection that includes a means whereby the operator is alerted to the emergency operating conditions at the time they occur?

PHMSA Response – Section 192.741 sets forth requirements for the installation of telemetering or recording gauges at pressure limiting and regulating stations for gas pipeline distribution systems. Pressure limiting or regulating stations with indications of abnormally high or low pressure must be inspected and measures necessary to correct any unsatisfactory condition must be employed. This would include safety measures to ensure that overpressure protection equipment malfunctions are identified and remediated in a timely manner. Further, overpressure regulation devices with a history of operational pressure exceedance do not meet the requirements set forth in § 192.739(a)(2) and may require repair, replacement or additional monitoring, including monitoring pursuant to § 192.613. Finally, pursuant to § 192.605(b)(10)(iii), operators must prepare and follow written procedures governing the systemic and route testing and periodic inspection of pressure limiting equipment to determine that it is in a safe operating condition. Also, for operators that have a control room, § 192.631 requires monitoring of pipeline systems for abnormal and emergency operating conditions.

Question 5 - Is within 30 days or up to a period of 15 months considered by PHMSA an immediate response?

PHMSA Response – Section 192.613 requires a procedure for “continuing surveillance” for facilities with “unusual operating and maintenance conditions.” A pressure limiting or regulating station with a history of operational and maintenance failures that cause the MAOP to be exceeded, where a monitoring regulator is being used, would require a means of “continuing surveillance” to meet the requirements of § 192.613. PHMSA does not consider within 30 days or up to a period of 15 months (which is a period for inspection) an immediate response nor does the agency consider this period of time to comport with continuing surveillance requirements under § 192.613.

If we can be of further assistance, please contact Tewabe Asebe at 202-366-5523.

Sincerely,

John A. Gale
Director, Office of Standards
and Rulemaking

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ARIZONA CORPORATION COMMISSION

October 22, 2019

CERTIFIED MAIL

NOV - 4 2019

Mr. John Gale
Director, Office of Standards and Rulemaking
Pipeline and Hazardous Materials Safety Administration
United States Department of Transportation
1200 New Jersey Avenue, SE
Washington, DC 20950

RE: REQUEST FOR INTREPRETATION OF CFR PART 192.739(a)(3)

Dear Mr. Gale:

The Arizona Corporation Commission's Office of Pipeline Safety (AZOPS) is hereby requesting an interpretation of Title 49 CFR Part 192.739(a)(3), which requires relief devices, pressure control equipment, and pressure regulating stations to be set to function at the proper pressure.

The question was noted during an annual Audit that this office conducted. Records of previous inspections done on relief devices indicated that the set pressure at which the relief device starts to open, is in exceedance of system's maximum allowable operating pressure (MAOP).

In addition to the issue involving relief devices, it was also observed that at numerous worker / monitor stations the set point of the monitor regulator is higher than the downstream system's MAOP. AZOPS believes that this setup violates the requirements of both Part 192.739(a)(3) as well as Part 192.619. If the worker regulator fails, and the monitor regulator takes over the overpressure protection duties, then the system is being operated at a pressure that exceeds the system's MAOP. Also, in the present over pressure protection scheme, during an emergency pressure control occurrence, should the worker regulator fail and the monitor regulator activate and take over pressure control, there would be no remaining over pressure protection as required by Part 192.195 for the duration of these operating conditions.

An earlier interpretation of Part 192.621 (PI-14-0016) dated on April 21, 2015 stated that the system's overpressure conditions are only allowed for the time taken to activate the overpressure protection device and not for long term or frequently occurring normal operating conditons. Therefore, immediate response by the operator either to shutdown or reduce the operating pressure to normal operating conditions is required.

In the case of the worker / monitor stations that supply a distribution system with more than one source of supply, the electronic pressure recording device (EPR) at each station is read once each month, so if there are any indications that the worker regulator has failed, then the condition would be observed on EPR and immediate corrective action would be taken. However, the EPR is only read once per month, so the overpressure condition may have been in effect for up to 30 days before corrective action is taken.

The AZOPS concern is regard to the worker / monitor stations that supply a single sourced distribution system where EPR units are not required per Part 192.741. If the worker regulator failed in this situation, then the condition may not be noted until the next scheduled annual maintenance inspection of the station, so the condition may continue for up to 15 months.

The AZOPS interprets that any activation of an over pressure protection device requires an immediate response at the time of occurrence, not the time of discovery.

The operator's written procedures state that the monitor regulator shall achieve a lockup pressure that shall not exceed the MAOP plus allowable buildup as defined in Part 192.201.

In the Audit report response, the operator has stated the following:

"The Company respectfully disagrees that a violation of 49 CFR 192.201(a) occurred. The Company's policies and procedures, as contained within its Operations Manual, require the establishment of set pressures on its regulators to ensure the pressure within the pipeline will not exceed the Maximum Allowable Operations Pressure (MAOP) plus allowable buildup consistent with the application of 49 CFR Part 192.201(a)(2). The allowance above MAOP is necessary for the safe and reliable operation of the station, recognizing that a monitor regulator, if set at a pressure too close to the worker regulator set point, may interfere with the normal operation of the worker regulator. Without the allowance, a worker regulator would be unable to operate at its set point (MAOP). The records observed during the audit pertaining to regulator set points were consistent with both Federal regulations and the Company's procedural requirements.

Notwithstanding, the Company appreciated the opportunity to discuss overpressure protection (OPP) set points in more detail with Staff on August 20, 2019, as well as during the quarterly pipeline safety meeting held on September 17, 2019. The Company understands that the focus of Staff's concern is the potential that a single-fed system could operate above MAOP, but below MAOP plus the allowable buildup, for a period exceeding 30 days¹ up to the 15-month maximum duration allowed under 49 CFR Part 192.739(a) for completing the next scheduled inspection should the worker regulator experience a malfunction and the OPP device assume control.

¹ The 30-day period is reflective of the inspection interval of an Electronic Pressure Recorder (EPR) that could detect a situation where the worker regulator has failed, and the monitor regulator has assumed control.

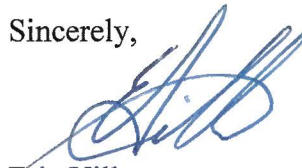
In an effort to exceed the current minimum standards established in 49 CFR Part 192, the Company is requesting an additional 60 days to fully evaluate those affected systems in Arizona where a single regulator station facility serves a downstream system. The Company currently has 952 regulator stations in the State of Arizona that provide the single source of supply or feed to a downstream system and do not currently have any downstream pressure monitoring devices such as an Electronic Pressure Recorder (EPR). The additional time will allow the Company to identify and fully assess potential actions including, but not limited to, additional pressure monitoring on single-fed systems, the applicability of remote pressure detection alerting devices, or adjusting the set points on the affected OPP devices to MAOP or below to ensure system reliability is maintained throughout the forthcoming winter heating season. By Friday, December 6, the Company will present this plan to Staff including a timeline of expected actions.”

Therefore, the AZOPS requests clarification of the following:

1. Does the relief valve set point at a pressure above the MAOP violate Part 192.739(a)(3) and Part 192.619?
2. Does monitor regulator set point above the downstream MAOP violate Part 192.739(a)(3) and Part 192.619?
3. Does the activation of an over pressure protection device require an immediate response at the time of occurrence or at the time of discovery?
4. Are operators required to provide overpressure protection that includes a means where by the operator is alerted to the emergency operating conditions at the time they occur?
5. Is within 30 days or up to a period of 15 months considered by PHMSA an immediate response?

Thank you for your attention in this manner. Should you have any questions, please contact me at (602) 262-5601.

Sincerely,



Eric Villa
Program Manager
Pipeline Safety Section

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