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## Office of Pipeline Safety

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### **Alert Notice-MNOPS AL-01-2020 to Natural Gas Pipeline Operators Operating Pipelines within MAOP Thresholds: Over-pressure Protection and Operating Pressures**

#### **Date:**

June 30, 2020

#### **Purpose:**

The purpose of this Alert Notice is to provide guidance and clarification for gas pipeline operators on operating their pipeline systems within MAOP limits.

#### **Guidance Pertains to the Following Codes:**

- i) 49 CFR Part §192.195 Protection against accidental over-pressuring.
- ii) 49 CFR Part §192.619 Maximum allowable operating pressure: Steel or plastic pipelines

#### **Background:**

##### *Over-pressure Protection*

Within the state of Minnesota there are a number of local distribution companies (LDC's) who rely on their gas supplier for over-pressure protection. Typically this would be a distribution operator whose Town Border Station (TBS) is owned and operated by the gas supplier. It is important to note that this arrangement is not forbidden under §192, but it does potentially expose the LDC to compliance issues.

An event occurred in 2019, involving a municipal operator whose system was accidentally over-pressurized by the transmission gas supplier. A transmission gas supplier technician responded to a late-night high-pressure alarm generated at the TBS, which is owned and operated by the transmission company but exclusively supplies gas to the municipal operator. Due to a series of errors, the technician inadvertently increased the pressure on the primary regulator after closing off the relief valve causing the MAOP to be exceeded. While the municipal operator had a relief valve at the district regulator station (DRS) that prevented the town from being exposed to excess pressures, the main between the DRS and TBS was over-pressured.

In this example, the municipal operator was issued a violation for *exceeding the MAOP* of their system, despite the fact that they were not involved in any of the procedural violations that led to the over-pressurization event. It is the responsibility

of any operator to ensure that their own system does not exceed MAOP and is protected from over-pressurization per §192.195. By relying on a gas supplier for over-pressure protection an operator exposes themselves to potential safety and regulatory risks.

### *Operating at MAOP*

This Office has observed that there are a number of gas distribution systems in the state that are operating at the Maximum Allowable Operating Pressure (MAOP). While operating a gas distribution system at the MAOP is allowed under §192, it may increase the risk of a non-compliance with §192.619 (a) by exceeding the MAOP.

§192 provides that gas operators are allowed to operate their gas distribution systems above the MAOP for short periods of time during *abnormal* operating conditions but not during normal operating conditions. In 2019, there were several examples of gas distribution operators operating their systems at the MAOP who exceeded the MAOP during normal operating conditions. Minor fluctuations in operating pressure during normal operating conditions is common and may be due to variations in downstream customer loading situations or other similar load changes. In addition, relief valve set points are typically set to protect downstream piping and appurtenances from pressures above the MAOP. When a gas system operates at the MAOP, the set points of relief valves inevitably will be higher than the MAOP, thereby, not being able to provide the pressure protection desired during normal operations.

### **Recommended Practices:**

This Office recommends the following practices to gas pipeline operators in order to avoid exceeding the MAOP of their system(s)

- I) For municipal and/or local distribution companies, it is recommended to **not** rely on a gas supplier for over-pressure protection, unless:
  - i. The operator is able to utilize their own over-pressure protection devices meeting the requirements of §192.195 and that they retain exclusive access and operation of the devices immediately downstream of the custody transfer point.
- II) Gas pipeline operators who are currently operating their system at MAOP should reduce the system operating pressure so:
  - i. Minor fluctuations in operating pressure will not result in pressures above the MAOP and,
  - ii. Ensure the set point at which relief valves begin to operate are at or below the MAOP.

**Please contact our office if you have any questions regarding this alert notice.**