

Identifying Components & Maintenance Requirements





At what point does a Pressure Limiting and Regulating Station require maintenance?



192.195 protection against accidental over pressuring.

§192.619 Maximum allowable operating pressure - Steel or plastic pipelines. Identifying Segments with an MAOP

§192.199 Requirements for design of pressure relief and limiting devices. Identifying the required components for protection against accidental over pressuring

§192.739 Pressure limiting and regulating stations: Inspection and testing. Inspecting and Testing. Maintenance and time frames.

§192.741 Pressure limiting and regulating stations: Telemetry or recording gauges. Distribution system supplied by more than one district pressure regulating station



§192.195 Protection against accidental over pressuring.

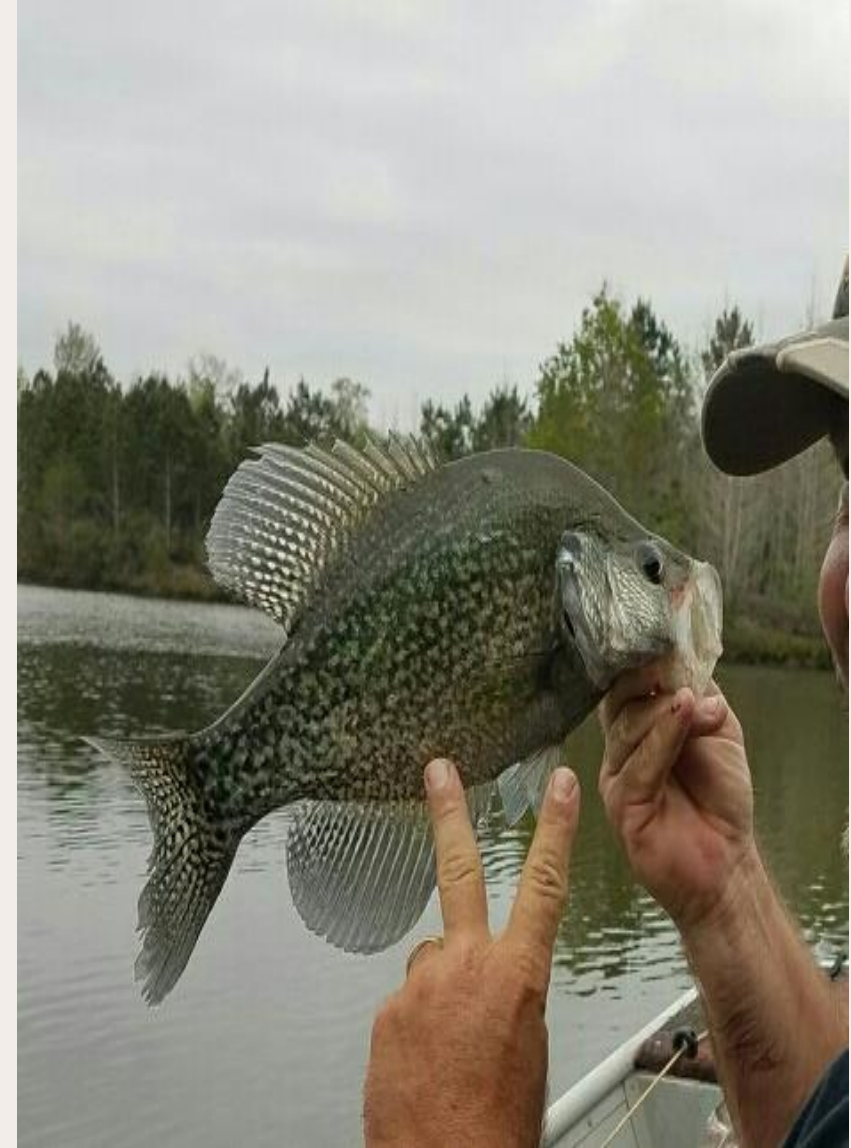
(a) General requirements. Except as provided in §192.197, each pipeline that is connected to a **gas source** so that the **maximum allowable operating pressure could be exceeded as the result of pressure control failure or of some other type of failure**, must have pressure relieving or pressure limiting devices that meet the requirements of §192.199 and §192.201.

(b) Additional requirements for distribution systems. Each distribution system that is supplied from a **source of gas** that is at a higher pressure than the **maximum allowable operating pressure for the system must**

(1) Have pressure regulation devices capable of meeting the pressure, load, and other service conditions that will be experienced in normal operation of the system, 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 over pressuring.







§192.619 (a)(b) Maximum allowable operating pressure - Steel or plastic pipelines

(a) No person may operate a segment of steel or plastic pipeline at a pressure that exceeds a **maximum allowable operating pressure (MAOP)** determined under paragraph (c), (d), or (e) of this section, or the lowest of the following:

(b) No person may operate a segment to which paragraph (a)(4) of this section is applicable, unless over-pressure protective devices are installed on the segment in a manner that will prevent the **maximum allowable operating pressure from being exceeded**, in accordance with §192.195.



§192.199 (a-h) Requirements for design of pressure relief and limiting devices.

- **Except for rupture discs**, each pressure relief or pressure limiting device must
- (a) Be constructed of materials such that the operation of a device will not be impaired by corrosion; (b) Have valves and valve seats that are designed not to stick in a position that will make the device inoperative; (c) Be designed and installed so that it can be readily operated to determine if the valve is free, can be tested to determine the pressure at which it will operate, and can be tested for leakage when in the closed position; (d) Have support made of noncombustible material; (e) Have discharge stacks, vents, or outlet ports designed to prevent accumulation of water, ice, or snow, located where gas can be discharged into the atmosphere without undue hazard; (f) Be designed and installed so that the size of the openings, pipe, and fittings located between the system to be protected and the pressure relieving device, and the size of the vent line, are adequate to prevent hammering of the valve and to prevent impairment of relief capacity; (g) Where installed at a district regulator station to protect a pipeline system from over pressuring, be designed and installed to prevent any single incident such as an explosion in a vault or damage by a vehicle from affecting the operation of both the overpressure protective device and the district regulator; and, (h) Except for a valve that will isolate the system under protection from its source of pressure, be designed to prevent unauthorized operation of any stop valve that will make the pressure relief valve or pressure limiting device inoperative.

We are cooking with Crisco now!



§192.739 Pressure limiting and regulating stations: Inspection and testing.

(a) Each pressure limiting station, relief device (except rupture discs), and Pressure regulating station and its equipment must be subjected at intervals not exceeding 15 months, but at least once each calendar year, to inspections and tests to determine that it is-

- (1) In good mechanical condition;
- (2) Adequate from the standpoint of capacity and reliability of operation for the service in which it is employed;
- (3) Except as provided in paragraph (b) of this section, set to control or relieve at the correct pressure consistent with the pressure limits of §192.201(a); and
- (4) Properly installed and protected from dirt, liquids, or other conditions that might prevent proper operation.



§192.741 Pressure limiting and regulating stations: Telemetry or recording gauges.



- (a) Each distribution system supplied by more than one district pressure regulating station must be equipped with telemetry or recording pressure gauges to indicate the gas pressure in the district.
- (b) On distribution systems supplied by a single district pressure regulating station, the operator shall determine the necessity of installing telemetry or recording gauges in the district, taking into consideration the number of customers supplied, the operating pressures, the capacity of the installation, and other operating conditions.
- (c) If there are indications of abnormally high or low pressure, the regulator and the auxiliary equipment must be inspected and the necessary measures employed to correct any unsatisfactory operating conditions.

Any questions so far?



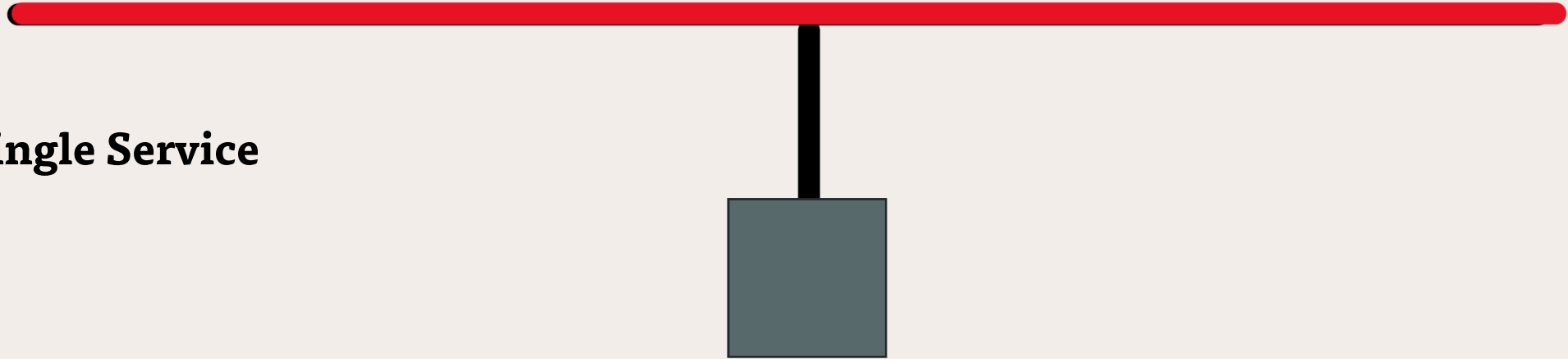
§192.3 Definitions

Main means a distribution line that serves as a **common source** of supply for more than one service line.

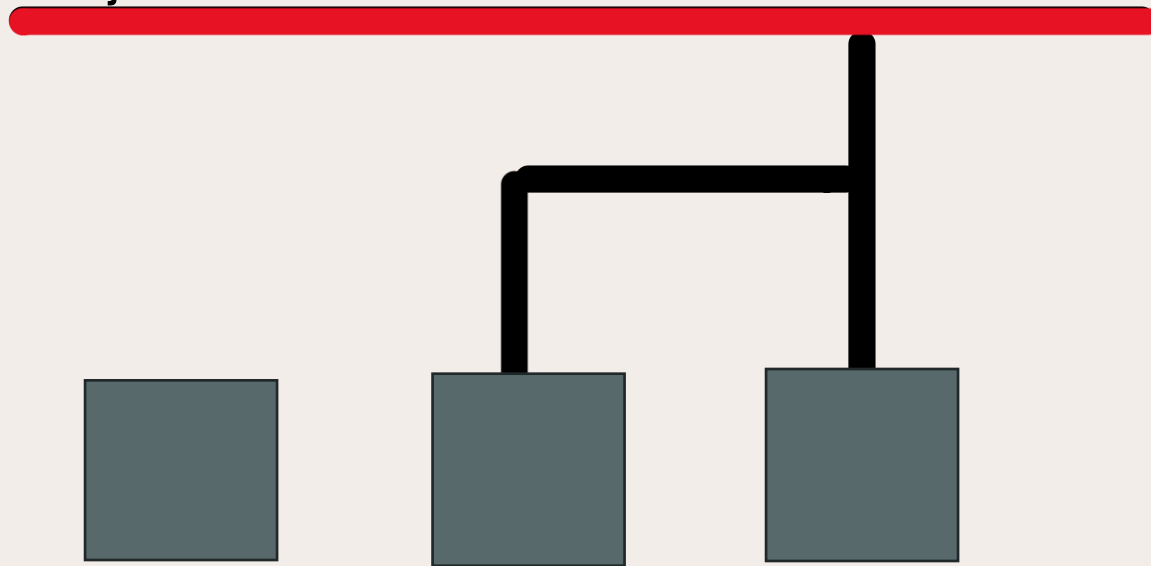
Service line means a distribution line that transports gas from a **common source** of supply to an individual customer, to two adjacent or adjoining residential or small commercial customers, or to multiple residential or small commercial customers served through a meter header or manifold. A service line ends at the outlet of the customer meter or at the connection to a customer's piping, whichever is further downstream, or at the connection to customer piping if there is no meter.



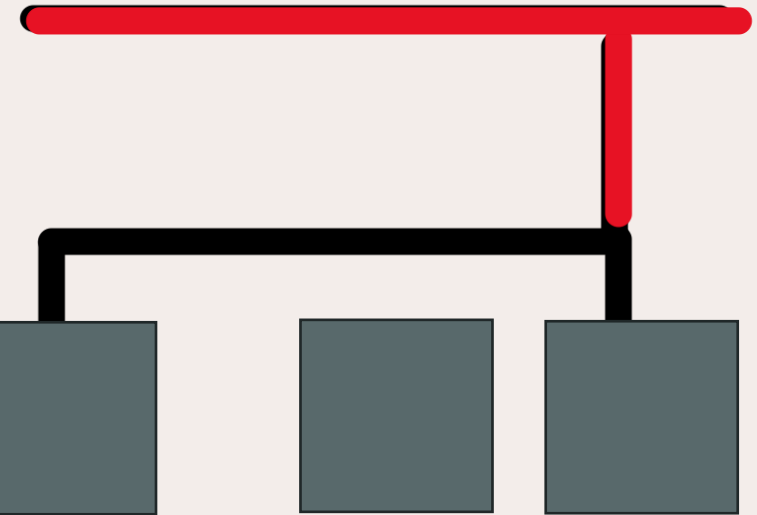
Single Service



Adjacent



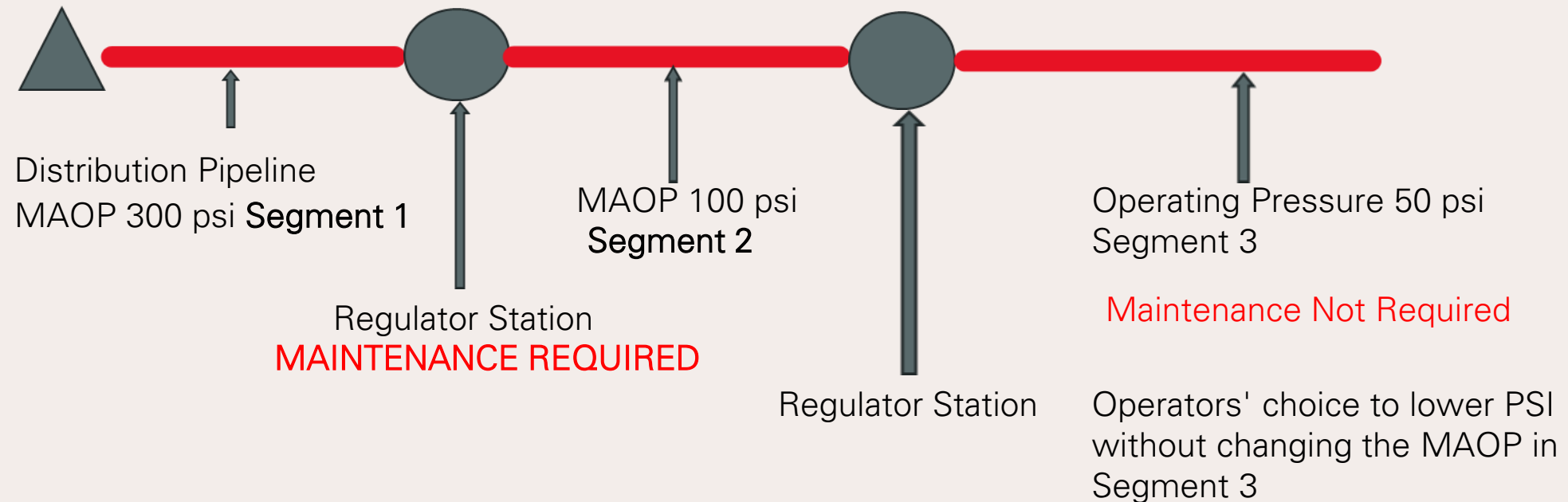
Not Adjacent



§192.619(a) Maximum allowable operating pressure: Steel or plastic pipelines. (a) No person may operate a segment of steel or plastic pipeline at a pressure that exceeds a maximum allowable operating pressure (MAOP) determined under paragraph (c), (d), or (e) of this section, or the lowest of the following:

Operators must establish a MAOP for their pipeline system.

Source/Gate Station/Supply (500 psi)District Regulator Station. **MAINTENANCE REQUIRED**



Thank you

GPS Southern Region Supervisor

Shawn Emmons

(334)850-0052

Shawn.Emmons@psc.alabama.com