

Indiana Utility Regulatory Commission

2018 Pipeline Safety





§192.621 Maximum allowable operating pressure: High-Pressure distribution systems



Regulator and Overprotection Set Points for High-Pressure distribution systems

§192.621 Maximum allowable operating pressure: High-Pressure distribution systems.

(a) No person may operate a segment of a high pressure distribution system at a pressure that exceeds the lowest of the following pressures, as applicable:

- (1) The design pressure of the weakest element in the segment, determined in accordance with C and D of this part.
- (2) 60 PSIG for a segment of a distribution system otherwise designated to operate at over 60 PSIG, unless the service lines in the segment are equipped with service *regulators*[*See Pressure limiting station, Pressure regulating station, Pressure relief station, Service regulator. (Guide definition)*] or other pressure limiting devices in series that meet the requirements of §192.197(c).



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- (5) The pressure determined by the *operator* the maximum safe pressure after considering the history of the segment, particularly known corrosion and the actual operating pressures.**



§192.195 Protection against accidental over pressuring.



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§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](#).

[§192.201](#) This is the code section that a few are misinterpreting.



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§192.195 Protection against accidental over pressuring.

(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.



§192.201 Required capacity of pressure relieving and limiting stations.



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§192.201 Required capacity of pressure relieving and limiting stations.

- (a) Each *pressure relief station*, or pressure limiting station or group of those stations installed to protect a *pipeline* must have enough capacity, and must be set to operate, to insure the following:
 - (1) In a low pressure distribution system, the pressure may not cause the unsafe operation of any connected and properly adjusted *gas* utilization equipment.



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§192.201 Required capacity of pressure relieving and limiting stations.

(2) In pipelines other than a low pressure distribution system:

- (i) If the *maximum allowable operating pressure* is 60 PSIG., the pressure may not exceed the maximum allowable operating pressure plus 10 percent, or the pressure that produces a *hoop stress* of 75 percent of *SMYS*, whichever is lower;
- (ii) If the maximum allowable operating pressure is 12 PSIG or more, but less than 60 PSIG, the pressure may not exceed the maximum allowable operating pressure plus 6 PSIG or
- (iii) If the maximum allowable operating pressure is less than 12 PSIG, the pressure may not exceed the maximum allowable operating pressure plus 50 percent.



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- It is important to understand, the plus 10% listed in (i), the plus 6 PSIG listed in (ii), and the plus 50% listed in (iii) is only allowed for the time required to activate the overpressure protection device and are not meant for long term or frequently occurring operating conditions therefore, require immediate response by the operator either to shut down or reduce the operating pressure to normal operating conditions.
- On a system with a 60 PSIG MAOP, the overprotection device must be set at no more than 60 PSIG. If it is set at 60 PSIG and the manufacture of the overprotection device indicates the device will have a 3 PSIG build, you will not be in violation of the code when the pressure hits 63 PSIG. If it is set at above 60 PSIG, you will be in violation if it exceeds 60 PSIG!
- PHMSA has an interpretation 192.201 19 dated April 21, 2015 that spells out the fact that pressure settings cannot exceed MAOP.



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



Regulator and Overprotection Set Points for High-Pressure distribution systems

§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.



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

Except for rupture discs, regulators and overprotection devices must be unseated and verify they reseal. The IURC inspectors expect to see documentation this was completed. We know during some inspections the pilots on the devices are checked to see at what pressure the pilot starts relieving. This is not adequate. You must verify each device is unseated and reseals and record the pressures.

(2) Adequate from the standpoint of capacity and reliability of operation for the service in which it is employed;

Operators need to document the capacity of the devices are adequate. If you have an outage due to capacity issues, the first piece of documentation we are going to review will be the capacity check with the load.



Question of the Day..

According to §192.621(a) Can a person operate a segment of pipe above the MAOP?





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