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Monitoring Regulator System

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In your memorandum of August 2, 1979, relating to monitor regulators as mentioned in §192.197(c)(2), you ask three specific questions. Following are the questions and the answers to those questions:

Question 1 What is the official definition of a monitor system?

Answer A monitor regulator system consists of two pressure regulators set in series in a pipeline in a manner that will limit the downstream to its MAOP or less if one of the regulators should fail. There are three modes of operation that are normally used with monitor regulator systems; these are:

(1) The upstream regulator controlling the pressure delivered, with the downstream regulator set for a slightly higher pressure than the normal delivered pressure (still below the MAOP). If the upstream regulator fails, the downstream regulator then takes control of the delivered pressure at a slightly higher than normal delivery pressure.

(2) The downstream regulator controlling the pressure delivered, with the upstream regulators set for a slightly higher than normal pressure and the system pressure being monitored from the upstream regulator by a sensing line connecting the control of the upstream regulator to the downstream piping. If the downstream regulator fails, the upstream regulator then takes over control of the delivered pressure at a higher than normal pressure.

(3) A third method would be to set the upstream regulator at the MAOP or less of the pipeline being controlled and set the downstream regulator at an even lower pressure that would normally be delivered to the downstream pipeline. If the downstream regulator should fail, the upstream regulator then takes control of the delivered pressure at its higher pressure setting.

Question 2 When are regulators in series considered to be monitoring?

Answer The regulator that is not normally controlling the delivery pressure is the monitoring regulator.

Question 3 At what pressure should the monitor be set with respect to the operating regulator?

Answer This is explained in response to Question 1 above.

Cesar DeLeon