

# Natural Gas T & D Technical Rules

AERS and PA PUC Partnership

September, 2008



## Metering

- § 59.15. Measurement of gas at higher than standard service pressure.
  - ✓ (a) *Pressure-recording equipment.* If gas is measured to customers through displacement meters at a pressure greater than standard service pressure, the meters shall be equipped with reliable pressure-volume recording gauges or other devices for accurately determining the quantity of gas which has passed through the meter in accordance with contract or tariff provisions.
  - ✓ (b) *Determination of multiplier.* In computing the volume of gas at a given pressure base from a pressure-volume chart, the multiplier shall be obtained by the weighted average method, which consists of determining the average pressure for each indicated unit volume on the chart.



## Metering (Cont.)

- ✓ (c) *Fixed pressure factor measurement.* If the gas metering pressure can be maintained at a constant level so that it will not vary by more than plus or minus 1.0% of the absolute metering pressure, the quantity of gas corrected for pressure for billing purposes may be determined by multiplying the uncorrected volume by the factor of Metering Pressure Plus Atmospheric Pressure Divided by Base Pressure or by a special index with gearing to perform this calculation. The special index shall meet the specifications of ANSI Standard B109.1, § 6.2 (1986) or ANSI Standard B109.1, § 6.9 (1986). The ability of the regulator to maintain the constant pressure shall be verified at or prior to installation. Verification will be established by the use of a verified pressure-indicating gauge (accuracy: ANSI B40.1 Grade 3A), or a pressure-recording gauge, at both high and low flow conditions. When customer load is measured with a meter with a rated capacity of 1,500 cubic feet per hour or less, with metering pressure less than 3 psig, the performance of the regulator shall be verified in accordance with the test schedule of the downstream meter, established under § 59.21 (relating to meter tests). When customer load is measured with a meter with a capacity of over 1,500 cubic feet per hour or metering pressure of 3 psig or more, the performance of the regulator shall be verified at least every 5 years, except that those installed before January 1, 1990, shall be verified at least every 2 years.



## Metering (Cont.)

- ✓ (d) *Determination of static and differential pressure.* In computing the volume of gas at a given pressure base from an orifice meter chart, the average static pressure and the average differential pressure shall be determined for periods not exceeding 1 hour. If pressure variations are extreme during the hour, the average shall be determined for 15-minute intervals.
- ✓ (e) *Mechanical devices.* Mechanical devices may be substituted for the method of computing orifice meter charts set forth in this section.



## Metering (Cont.)

- § 59.17. Furnishing of meters and regulations.
  - ✓ (a) *Installation.* Except as provided in § 59.31 (relating to service from production or transmission lines), a public utility shall provide and install at its own expense and shall continue to own, maintain and operate equipment necessary for the regulation and measurement of gas furnished to its customers. If meters or regulators not required by this section are furnished by the utility for the convenience of the customer, a reasonable charge for the meters or regulators may be made. Nothing in this subsection may be construed to require the utility to install regulating equipment on any gas piping system of a customer beyond the point of delivery at the meter outlet of the utility.
  - ✓ (b) *Excess pressure protection.* If gas is supplied from a high or medium pressure distribution system and the pressure is reduced to standard service pressure for use by the customer, the installation shall be provided with adequate over-pressure protection to prevent the pressure from exceeding 2 pounds per square inch in installations made on or before May 1, 1986, and the safe operating pressure for connected and properly adjusted gas utilization equipment in installations made after that date, in the event of a pressure regulator of failure.



## Meter Testing

- § 59.20. Meter-testing equipment.
  - ✓ (a) *General testing equipment.* Each public utility furnishing metered gas service shall own and maintain the equipment and facilities necessary for accurately testing the various types and sizes of meters used by such utility for the measurement of gas, unless arrangements are made to have the testing done in a shop or laboratory containing equipment and operated in a manner acceptable to the Commission. The accuracy of provers and method of operation will be checked periodically by the Commission. Alterations, accidents, or repairs to stationary meter-proving equipment, which might affect the accuracy of the equipment or the method of operating it, shall be promptly reported in writing to the Commission. The accuracy of testing instruments and equipment used as utility standards, such as dead-weight testers and precision type pressure gauges, which are used in the testing or calibration of meters or associated metering equipment will be checked periodically by the Commission.



## Meter Testing (Cont.)

- ✓ (b) *Equipment for testing small capacity meters.* Each public utility shall own and maintain, except as provided in subsection (a), one meter prover of approved type and of a capacity adequate for the testing of small capacity meters. Each meter prover shall be supplied with accessories needed for accurate meter testing, be located in a room suitable for meter testing, and be protected from drafts and excessive changes of temperature. If the proving system includes automatic testing equipment or any mechanical devices to provide "read-out" capability—the entire meter proving system, including the basic prover, shall be maintained in good condition and correct adjustment so that it will be capable of determining the accuracy of any service meter to within 0.5%.
- ✓ (c) *Equipment for testing large capacity meters.* Each public utility furnishing metered-gas service through orifice, turbine, or large displacement meters—except as provided in subsection (a)—shall have available and maintain in proper adjustment test equipment suitable for determining the accuracy of any orifice or large displacement meter used by the utility to within 0.5%. If the public utility uses a transfer prover standard for testing large capacity meters, the accuracy of the transfer prover and the method of operating will be checked periodically by the Commission in conjunction with all prover tests.



## Service to Customers

- **§ 59.26. Refusal to serve applicants or customers.**
- ✓ (a) A public utility may initially decline to serve an applicant if, in the judgment of the utility, any of the following conditions are present:
  - (1) The applicant has not complied with Commonwealth and municipal regulations governing gas service, and with the rules and regulations of the utility.
  - (2) The installation of piping or gas equipment of the applicant is hazardous or improper.
  - (3) The service requested by the applicant is unreasonable and improper under the circumstances.
- ✓ (b) A public utility may decline to serve an existing customer if, in the judgment of the utility, a hazardous condition exists regarding the piping or gas equipment of the customer.



## Service Connections

- ✓ (c) *Service connection.* When connecting the premises of the customer with public utility distribution mains, the public utility shall furnish, install and maintain the service line or connection according to the rules and regulations of its filed tariff.



## Line Extensions

- **§ 59.27. Extension of facilities.**
- ✓ Each public utility shall file with the Commission, as part of its tariff, a rule setting forth the conditions under which facilities will be extended to supply service to an applicant within all, or designated portions, of its service area. The utility may, upon proper cause shown, refuse or condition the acceptance of a particular application of extension of facilities.



## Pressure Requirements

- **§ 59.29. Gas pressure requirements for low-pressure distribution systems.**
- ✓ (a) *Maximum pressure.* The maximum pressure specified for a low pressure system may not be greater than a pressure which will not cause the unsafe operation of connected and properly adjusted gas utilization equipment or 14 inches of water column (8.1 ounces), whichever is less, at the outlet of the service meter of a low pressure customer.
- ✓ (b) *Minimum pressure.* The minimum pressure at the outlet of a service meter of a low pressure customer may not be less than a pressure which will not cause the unsafe or inadequate operation of a connected and properly adjusted gas utilization equipment or 2 inches of water column (1.2 ounces), whichever is greater, unless due to insufficient capacity of the service line owned by the customer.



## Pressure Requirements (Cont.)

- ✓ (c) *Changing pressure.* A public utility may change the distribution pressure for any system, but if a change is made, all appliances of a customer located within the system shall, if necessary, be readjusted by and at the expense of the utility.
- ✓ (d) *Pressure gauges.* A public utility shall maintain and operate on the outlet side of the system regulator station, at least one recording gas pressure gauge of suitable range. If more than one regulator station is used to serve a single pressure system, recording pressure gauges need not be installed for each regulator station. A sufficient number of recording pressure gauges shall be installed and operated in each distribution system to furnish a continuous record of the pressure prevailing in all parts of the system.



## Non-Distribution Service

- § 59.31. Service from production or transmission lines.
  - ✓ (a) Conditions of service. Service to applicants directly from production or transmission lines which are not part of the distribution system from which customers are normally supplied shall be furnished under conditions stated in the tariff rules and regulations of the utility.
  - ✓ (b) Excess pressure protection. If the pressure from lines governed by this section is reduced to standard service pressure for use by the customer, the installation shall be provided with adequate over-pressure protection to prevent the pressure from exceeding two pounds per square inch in the event of regulator failure.



## Non-Distribution Service (Cont.)

- ✓ (c) Cost of equipment. The utility may require a customer served directly from a line governed by this section to provide and install the regulator and excess pressure protective device necessary to render service, or the utility may provide such equipment and make a reasonable charge for the equipment and its installation.
- ✓ (d) Location of equipment. If a customer is served directly from a line governed by this section, the regulator and meter shall be located as closely as possible to the point where the line is tapped.



## Emergency Procedures

- § 59.63. Natural gas emergency plans.
  - ✓ As part of its officially filed tariff, each jurisdictional gas utility shall have on file with the Commission natural gas emergency plans. The plans shall be under Commission requirements § § 59.71—59.75 (relating to gas emergency plans).



## Changing Suppliers

- § 59.93. Customer contacts with NGSs.
  - ✓ When a contact occurs between a customer and an NGS to request a change of the NGS, upon receiving direct oral confirmation or written authorization from the customer to change the NGS, the customer's new NGS shall:
    - ✓ (1) Notify the NGDC of the customer's NGS selection by the end of the next business day following completion of the application process. The NGDC shall verify the accuracy of the information provided by the NGS by matching at least two data elements such as name and account number, or address and account number, with NGDC records.
    - ✓ (2) Upon receipt of this notification, the NGDC shall send the NGDC ratepayer of record a confirmation letter noting the proposed change of NGS. This letter shall include notice of a 10-day waiting period in which the order may be canceled before the change of the NGS takes place. The notice shall include the date service with the new NGS will begin unless the customer contacts the NGDC to cancel the change. The 10-day waiting period shall begin on the day the letter is mailed. The letter shall be mailed by the end of the next business day following the receipt of the notification of the customer's selection of a NGS.



## Changing Suppliers (Cont.)

- § 59.94. Time frame requirement.
  - ✓ When a customer has provided the NGS with oral confirmation or written authorization to change NGSs, the NGDC shall make the change at the beginning of the first feasible billing period following the 10-day waiting period, as prescribed in § 59.93 (relating to customer contacts with NGSs).

