Temperature Compensation for Meters

In 1986, Paragraph 2.21 was added to the National Conference on Weights and Measures (NCWM) Handbook 130 *Uniform Laws and Regulations in the Areas of Legal Metrology and Fuel Quality*. This provision stated that all LP-gas sold by the liquid gallon must be sold to a temperature correction of 60°, except for meters with a rated capacity of 20 gallons per minute (gpm) or less.

In 2020, the Arizona Department of Agriculture proposed to change the requirement and require all meters to be temperature compensated because of the effect that temperature could have on the amount of energy (BTU) per gallon that the customer receives. It took a few years and several meetings of the NCWM for the proposal to be acted upon. Despite NPGA's objections to the proposal based on the relatively small impact especially for small packages compared to the cost that the industry would have to bear, the proposal was finalized and passed and now appears in the 2024 edition of Handbook 130.

In summary, the requirement in paragraph 2.21.2 of Handbook 130[1] requires:

- Automatic temperature compensation for metering systems with a maximum rated capacity greater than 20 gpm.
- Automatic temperature compensation for metering systems with a maximum rated capacity of 20 gpm or less that are placed into service after January 1, 2026.
- As of January 1, 2030, all metered sales, regardless of maximum rated capacity, shall be provided with automatic temperature compensation.

It should be understood that all existing installations of meters are permitted to be continued in use in their present state until January 1, 2030. If an existing installation, for example a dispenser, is removed from service and re-installed at another location or facility prior to January 1, 2026, it is not required to have automatic temperature compensation installed. However, any new installation of new or existing equipment made after January 1, 2026, must be provided with temperature compensation.

[1] Uniform Laws and Regulations in the areas of legal metrology and fuel quality as adopted by the National Conference on Weights and Measures, NIST Handbook 130 2024 edition