

**CHAPTER 33. AUTOMATIC TEMPERATURE COMPENSATORS****GENERAL**

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**Authority**

The provisions of this Chapter 33 issued under act of May 5, 1921 (P. L. 389, No. 187) (73 P. S. §§ 1701—1715); and section 8 of the Weights and Measures Act of 1965 (73 P. S. § 1658), unless otherwise noted.

**Source**

The provisions of this Chapter 33 adopted February 29, 1980, effective March 1, 1980, 10 Pa.B. 913; amended March 28, 1980, effective March 1, 1980, 10 Pa.B. 1398, unless otherwise noted.

**GENERAL****§ 33.1. Scope.**

This chapter applies to automatic temperature compensators utilized with an approved meter for the delivery of home heating oil to a domestic consumer.

**§ 33.2. Definitions.**

The following words and terms, when used in this chapter, have the following meanings, unless the context clearly indicates otherwise:

*API*—American Petroleum Institute.

*Automatic temperature compensator*—A device interfaced with a meter for automatically adjusting the indication and registration of the measured volume of product dispensed to the volume of 60°F.

*Bureau*—The Bureau of Standard Weights and Measures of the Department.

*Department*—The Department of Agriculture of the Commonwealth.

*Hydrometer*—An instrument for determining the specific gravity of a liquid.

*Specific gravity*—The ratio of the density of a liquid to the density of pure water.

*Thermal expansion rate*—The amount at which a volume of liquid will contract or expand per degree Fahrenheit.

## DEVICES

### § 33.11. Method of sale—temperature compensations.

Whenever home heating oil is either sold or delivered to a domestic consumer by the use of an approved meter equipped with an automatic temperature compensator, the volume shall be in terms of the United States gallon of 231 cubic inches or the liter with the volume expressed at 60°F (15.6°C). For individual deliveries in excess of 1,000 gallons, temperature compensation may be accomplished by the use of “Table 6” of the American Edition of the *American Society of Testing Materials—IP Petroleum Measurement Tables*.

### § 33.12. Design of device.

An automatic temperature compensator shall be of a design intended by the manufacturer for the temperature compensation of home heating oils and approved under the act of May 5, 1921 (P. L. 389, No. 187) (73 P. S. §§ 1701—1715).

(1) The device shall be capable of being deactivated from the automatic temperature computing mechanism so that the attached meter may indicate in terms of the uncompensated volume.

(2) The device shall be capable of applying a security seal in such a manner that the automatic temperature compensating system cannot be disconnected and that no adjustment can be made to the system once the security seal is in place.

(3) On the meter that is equipped with an automatic temperature compensator, a clear and conspicuous statement shall appear on the meter to show that the volume delivered has been adjusted to the volume at 60°F.

(4) On meters equipped with automatic temperature compensators, means shall be provided for inserting for test purposes a thermometer either in the liquid chamber of the meter or in the meter inlet or in the discharge line immediately adjacent to the meter.

### § 33.13. Test of automatic temperature compensators.

(a) Settings and adjustments on automatic temperature compensators shall be performed utilizing “Table 6” of the American Edition of the *American Society of Testing Materials—IP, Petroleum Measurement Tables*. Appropriate thermal expansion rate determinations shall be performed in one of the following manners:

- (1) A statement by the supplier to the dealer indicating the API specific gravity number or thermal expansion rate.
  - (2) Determination by a hydrometer designed to determine API specific gravity.
  - (3) Utilization of API No. 36 for No. 2 Fuel Oil.
- (b) Temperature determinations in adjusting an automatic temperature compensator shall be accomplished by the use of a liquid in glass mercury thermometer accurate to within  $\pm 1^{\circ}\text{F}$ .

**§ 33.14. Tolerances.**

Meters equipped with automatic temperature compensators shall agree to within the tolerances as prescribed in "Table 1, Tolerances for Vehicle Tank Meters" of the "Vehicle Tank Meter Code" of the *National Bureau of Standards Handbook 44*.

**OWNERS AND OPERATORS**

**§ 33.21. Duties of owners and operators of automatic temperature compensators.**

- (a) If a meter is equipped with an automatic temperature compensator, it shall be connected, operable and in use at all times. The automatic temperature compensator may not be removed, nor may a compensated meter be replaced on a delivery vehicle with an uncompensated meter without the written approval of the Director of the Bureau.
- (b) If a person or business utilizes automatic temperature compensators, then they shall only sell home heating oil by the use of a meter equipped with an automatic temperature compensator, and delivery vehicles operated by that business used to deliver home heating oil to domestic consumers shall be equipped with a meter and an automatic temperature compensator.
- (c) Metered delivery tickets shall have clearly printed on them, in identical size and type as that used in the sellers address, the statement "Volume Delivered Adjusted to 60°F."

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