
STATUTORY INSTRUMENTS

1990 No. 2626

The Weights and Measures (Local and Working Standard Capacity Measures and Testing Equipment) Regulations 1990

PART III

TESTING EQUIPMENT

Reference meters

5.—(1) Reference meters shall be tested either—

- (a) by means of a local or working standard capacity measure which is of sufficient size to hold at least one minute's delivery of the meter under test; or
- (b) by means of a weighing machine, the repeatability of which shall be not more than 0.01 per cent of the weight of the liquid delivered by the water under test, and which can weigh at least one minute's delivery of the meter under test.

(2) The capacity measure or the weighing machine used to test a reference meter shall have a discrimination threshold of not more than 0.01 per cent of the quantity delivered by the meter under test.

In a test under sub-paragraph (1)(b) above, the density of the test liquid shall be determined to an accuracy of 0.01 per cent.

6. A reference meter shall have been tested over the range of flowrates and liquids for which it is intended to be used within 24 months before use, and the results of the test shall be such that—

- (a) the range of five consecutive tests with the same liquid at the same flowrate does not exceed 0.05 per cent of the quantity delivered on each test;
- (b) the linearity shall be such that the range of the means of any five consecutive tests with the same liquid within the flowrate range shall not exceed 0.1 per cent of the quantity delivered on each test; and
- (c) notwithstanding the application of corrections when a reference meter is used to test meter measuring systems in accordance with the Measuring Equipment (Liquid Fuel delivered from Road Tankers) Regulations 1983(1) or the Measuring Instruments (EEC Requirements) Regulations 1988(2), the relative error of the mean of any five consecutive tests shall not exceed 0.5 per cent of the quantity delivered on any test.

7. A reference meter shall have been tested at a single flowrate within 6 months before use, and the mean of five consecutive measurements at the same flowrate shall not differ by more than 0.05 per cent of the quantity delivered on each test from the mean quantity delivered at the same flowrate with liquid of the same viscosity when the meter was last tested in accordance with regulation 6 above.

(1) S.I. 1983/1390, amended by S.I. 1986/1210.

(2) S.I. 1988/186, amended by S.I. 1988/1128.

Reference meters for water

8.—(1) Reference meters for water shall be tested with water either—

- (a) by means of a proving tank for water which is of sufficient size to hold at least 10 l or one minute's delivery of the meter under test whichever is the greater; or
- (b) by means of a weighing machine, the repeatability of which shall be not more than 0.05 per cent of the weight of the water delivered by the meter under test, and which can weigh at least 10 kilograms or one minute's delivery of the meter under test whichever is the greater.

(2) The proving tank for water or the weighing machine used to test a reference meter for water shall have a discrimination threshold of not more than 0.05 per cent of the quantity delivered by the meter under test.

9. A reference meter for water shall have been tested over the range of flowrates for which it is intended to be used within 12 months before use, and the results of the test shall be such that—

- (a) the range of five consecutive tests at the same flowrate does not exceed 0.5 per cent of the quantity delivered on each test;
- (b) notwithstanding the application of corrections when a reference meter for water is used to test metered supplies the relative error, determined from the mean of five consecutive tests at any flowrate within the flowrate range, shall not exceed 2 per cent of the quantity delivered on any test.

Multifillers

10. Every measure in a multifiller shall be tested in the manner in which it is to be used by discharging water into a working standard capacity measure or into a container and determining the volume of water delivered on a suitable weighing machine.

11. Every multifiller shall have been tested within six months before use and shall have been adjusted so that the quantity delivered does not lie outside the limit of error permitted for a working standard capacity measure of the same nominal capacity.

Burettes and pipettes

12. Burettes and pipettes shall have been tested within 12 months before use and shall have been adjusted so that the error in volume does not exceed the limit of error permitted for a working standard capacity measure of the same nominal capacity.

13. A pipette shall be tested as a measure of its maximum purported capacity, and (if applicable) as a measure of at least one amount indicated by a subdivision, by filling it to the level of the graduation, discharging it, and weighing the water discharged using a suitable weighing machine.

14. A burette shall be tested as a measure of its maximum purported capacity, and (if applicable) as a measure of at least two amounts indicated by subdivisions, by filling it to the level of the graduation, discharging it, and weighing the water discharged using a suitable weighing machine.

Displacement plungers

15. A displacement plunger shall be tested either by measuring the volume or, using a suitable weighing machine, by measuring the weight of water displaced when the displacement plunger is immersed in water up to the line which indicates the nominal volume.

16. A displacement plunger shall have been tested within 12 months before use and shall have been adjusted so that the error in volume does not exceed the limit of error set out in Schedule 1 to these Regulations.

Differential pressure gauges

17.—(1) A differential pressure gauge shall have been tested over the range of pressures for which it is intended to be used within 12 months before use.

(2) The error on a differential pressure gauge shall not exceed the limits of error shown in Schedule 2 to these Regulations.

Piston provers

18.—(1) A piston prover shall have been tested over its full working range within 12 months before use.

(2) The error on a piston prover shall not exceed the limits of error shown in Schedule 2 to these Regulations.