COMMISSION DIRECTIVE

of 31 March 1978

adapting to technical progress for the second time Council Directive 71/318/EEC on the approximation of the laws of the Member States relating to gas volume meters

(78/365/EEC)

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community,

Having regard to Council Directive 71/316/EEC of 26 July 1971 on the approximation of the laws of the Member States relating to common provisions for both measuring instruments and methods of metrological control (¹), as amended by the Act of Accession, and in particular Articles 17, 18 and 19 thereof,

Having regard to Council Directive 71/318/EEC of 26 July 1971 on the approximation of the laws of the Member States relating to gas volume meters (²), as amended by Commission Directive 74/331/EEC (³),

Whereas, in view of technical developments in the field in question, it is necessary to amend Directive 71/318/EEC;

Whereas the measures provided for in this Directive are in accordance with the opinion of the Committee on the Adaptation to Technical Progress of Directives Concerning the Elimination of Technical Barriers to Trade in Measuring Instruments,

HAS ADOPTED THIS DIRECTIVE :

Article 1

In the Annex to Directive 71/318/EEC, Items I.B.3, I.B.4.1, I.B.8.2.3, I.B.9, II.6.3, III.2, III.4 and III.5 are

hereby amended in accordance with the corresponding Sections in the Annex hereto.

Items II.5.2, II.7.2.7 and III.6.2.3 contained in the Annex hereto are hereby added to the Annex to Directive 71/318/EEC.

Article 2

1. Member States shall adopt the laws, regulations and administrative provisions needed in order to comply with this Directive in such a manner that these provisions shall take effect one year after the date of notification of this Directive, and shall forthwith inform the Commission thereof.

2. Member States shall communicate to the Commission the texts of the provisions of national law which they adopt in the field covered by this Directive.

Article 3

This Directive is addressed to the Member States.

Done at Brussels, 31 March 1978.

For the Commission Étienne DAVIGNON Member of the Commission

^{(&}lt;sup>1</sup>) OJ No L 202, 6. 9. 1971, p. 1.

⁽²⁾ OJ No L 202, 6. 9. 1971, p. 21.

^{(&}lt;sup>3</sup>) OJ No L 189, 12. 7. 1974, p. 9.

ANNEX

CHAPTER I.B

3. Additional devices

- Gas volume meters may be fitted with: 3.1.
 - (a) prepayment devices;
 - (b) integral pulse generators the outlets of which must bear an indication of the value of one pulse in the form :
 - '1 imp. $\stackrel{\wedge}{=} \dots m^3$ (or dm³)' or '1 m³ $\stackrel{\wedge}{=} \dots$ imp.'.

These additional devices, where fitted, are regarded as forming an integral part of the meter; they should be connected to the gas volume meter at the time of EEC initial verification. There are no separate requirements regarding their effects on the measuring properties of the meters.

- 3.2. Gas meters may be fitted with output drive shafts which should be taken to include drive shafts or other facilities for operating detachable additional devices. The torque which the gas meters are required to produce in order to drive the additional devices fitted must not bring about any changes in the meter indication greater than the values specified in Sections II.5.2.1 and III.5.2.1.
- 3.2.1. If there is only one drive shaft, it must be characterized by an indication of its constant in the form '1 tr \triangleq ... m³ (or dm ³)', of the maximum permissible torque in the form ' $M_{max} = \dots N.mm$ ' and of the direction of rotation.
- If there are several drive shafts, each shaft must be characterized by the letter M with 3.2.2. subscript in the form ' M_1 ; M_2 ; ... M_n ', as well as by an indication of its constant in the form '1 tr \triangleq ... m³ (or dm ³)' and of the direction of rotation.

The following formula must appear on the meter, preferably on the data plate :

 $k_1 M_1 + k_2 M_2 + \ldots + k_n M_n \le A N.mm$ in which :

A represents the numerical value of the maximum permissible torque applied to the drive shaft with the highest constant, where the torque is applied only to this shaft; this shaft must be characterized by the symbol M_1 ;

 k_i (i = 1; 2; ... n) represents a numerical value determined as follows: $k_i = \frac{C_1}{C}$;

 M_i (i = 1; 2; ... n) represents the torque applied to the drive shaft characterized by the symbol M_i;

 C_i (i = 1; 2; ... n) represents the constant for the drive shaft characterized by the symbol \mathbf{M}_{i} .

- 3.2.3. The extremity of the drive shafts must be protected by means of a sealed cap or by means of a sealed connection between any additional device and the meter.
- 3.2.4. The connection between the measuring device and the intermediate gearing must not be broken or altered if a torque equal to three times the permissible torque as laid down in Sections I.B.3.2.1 and I.B.3.2.2 is applied.

Inscriptions 4.

- Each meter must bear the following inscriptions, either on the dial plate or on a special data 4.1. plate or divided between the two:
 - (a) the EEC type-approval mark;
 - (b) the identification mark or name of the manufacturer;

- (c) the number and year of manufacture of the meter;
- (d) the size designation of the meter : this has the form of a capital G followed by a number which is laid down in Chapter II or III;
- (e) the maximum flow expressed as : $Q_{max} \dots m^3/h$;
- (f) the minimum flow expressed as : $Q_{min} \dots m^3/h$ (or dm^3/h);
- (g) the maximum operating pressure expressed as : p_{max} ... MPa (or kPa or Pa or bar or mbar);
- (h) for volumetric meters, the nominal value of the cyclic volume expressed as : V... m³ (or dm³);
- (i) where appropriate, the inscriptions mentioned in Sections I.B.3.1 and I.B.3.2; these inscriptions may, however, be made on other plates or on the meter itself.

These inscriptions must be clearly visible, easily legible and indelible under the normal conditions of use of the meter.

8.2.3. Locations should be provided for verification marks or seals :

(a) on all plates bearing an inscription required by this Annex;

- (b) on all parts of the meter which cannot otherwise be protected against interference liable to:
 - affect or alter the indication on the indicating device of the meter,
 - alter or break the connection between the measuring device and the indicating device,
 - remove or displace metrologically important parts of the meter.

9. EEC type-approval and EEC initial verification

EEC type-approval and EEC initial verification of gas volume meters shall be carried out in accordance with the requirements of the Council Directive of 26 July 1971 on the approximation of the laws of the Member States relating to common provisions for both measuring instruments and methods of metrological control.

9.1. EEC type-approval

- 9.1.1. Applications for EEC type-approval for gas meters must be accompanied by the following documents :
 - a description of the meter giving the technical characteristics and the principle of its operation,
 - a perspective drawing or photograph of the meter,
 - a nomenclature of parts with a description of the constituent materials of such parts,
 - an assembly drawing with identification of the component parts listed in the nomenclature,
 - a dimensioned drawing,
 - a plan showing the location of verification marks and seals,
 - a plan of the indicating device, with adjustment mechanisms,
 - a dimensioned drawing of metrologically important components,
 - a plan of the dial plate and of the inscriptions arrangements,
 - where appropriate, a plan of the additional devices referred to in Section I.B.3.1,
 - where appropriate, a table setting out the characteristics of the drive shafts (Section I.B.3.2),
 - a list of the documents submitted,
 - a declaration specifying that the meters manufactured in conformity with the type meet the requirements for safety, particularly those concerning the maximum operating pressure as indicated on the data plates.