

**2006 No. 1679**

**WEIGHTS AND MEASURES**

**The Measuring Instruments (Active Electrical Energy Meters)  
Regulations 2006**

<i>Made</i>	- - - -	<i>21st June 2006</i>
<i>Laid before Parliament</i>		<i>27th June 2006</i>
<i>Coming into force</i>		
<i>Regulations 1, 2, 7, 9 and 10 and Part 1 of Schedule 2</i>		<i>31st July 2006</i>
<i>Remaining regulations</i>		<i>30th October 2006</i>

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The Secretary of State, who is a Minister designated for the purposes of section 2(2) of the European Communities Act 1972<sup>(a)</sup> in relation to, and for purposes ancillary to, the regulation of specifications, construction, placing on the market and use of articles, instruments, containers or other equipment intended for weighing, measuring or testing<sup>(b)</sup>, makes the following Regulations in exercise of the powers conferred by section 2(2)—

PART 1  
PRELIMINARY

**Citation and commencement**

1.—(1) These Regulations may be cited as the Measuring Instruments (Active Electrical Energy Meters) Regulations 2006.

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<sup>(a)</sup> 1972 c.68.  
<sup>(b)</sup> S.I. 1975/427.

(2) This regulation, regulations 2, 7, 9 and 10 and Part 1 of Schedule 2 shall come into force on 31st July 2006.

(3) The remaining regulations shall come into force on 30th October 2006.

## Interpretation

2.—(1) In these Regulations—

“active electrical energy meter” means a device which measures the active electrical energy consumed in a circuit;

“authorised representative” means a person who is established in a member State and is authorised by a manufacturer, in writing, to act on his behalf;

“CE marking” means the CE marking referred to in regulation 12;

“the Commission” means the European Commission;

“conformity assessment procedure” means any procedure referred to in regulation 6;

“the Directive” means Directive 2004/22/EC of the European Parliament and of the Council of 31st March 2004 on measuring instruments<sup>(a)</sup>;

“enforcement authority” means any person who is, pursuant to regulation 14, authorised to enforce these Regulations;

“enforcement notice” means a notice served in accordance with regulation 17(2);

“enforcement officer” means a person appointed by an enforcement authority to act on its behalf to enforce these Regulations;

“essential requirements” means the requirements set out in Part 1 of Schedule 1;

“GEMA” means the Gas and Electricity Markets Authority;

“harmonised standard” means a technical specification adopted by the European Committee for Standardisation (CEN), the European Committee for Electrotechnical Standardisation (CENELEC) or the European Telecommunications Standards Institute (ETSI) or jointly by two or all of these organisations, at the request of the Commission pursuant to Directive 98/34/EC of the European Parliament and of the Council of 22nd June 1998 laying down a procedure for the provision of information in the field of technical standards and regulations and of rules on Information Society Services<sup>(b)</sup>, as amended by Directive 98/48/EC<sup>(c)</sup>, and prepared in accordance with the General Guidelines agreed between the Commission and one or more of CEN, CENELEC and ETSI;

“in writing” includes text that is—

(a) transmitted by electronic means;

(b) received in legible form; and

(c) capable of being used for subsequent reference;

“M marking” means the M marking referred to in regulation 12;

“manufacturer” means a person responsible for the conformity of a relevant instrument with the essential requirements with a view to either placing it on the market under his own name or putting it into use for his own purposes, or both;

“NIAER” means the Northern Ireland Authority for Energy Regulation;

“normative document” means a document containing technical specifications adopted by the Organisation Internationale de Métrologie Légale, subject to the procedure stipulated in Article 16.1, the reference of which is published by the Commission in the Official Journal of the European Union pursuant to Article 16.1(b);

“notified body” means—

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(a) O.J. No. L135, 30.4.2004, p.1.

(b) O.J. No. L204, 21.7.98, p.37.

(c) O.J. No. L217, 5.8.98, p.18.

- (a) the Secretary of State; or
- (b) a United Kingdom notified body; and
- (c) for the purposes of regulations 4(1)(c), 15(6) and 17(1)(b), a person designated by another member State,

who has been notified to the Commission and the other member States pursuant to Article 11(1);

“notified body criteria” means the criteria set out in Part 1 of Schedule 2;

“place on the market” means making available for the first time in a member State a relevant instrument intended for an end user, whether for reward or free of charge;

“put into use” means the first use of a relevant instrument intended for the end user for the purposes for which it was intended;

“relevant instrument” must be construed in accordance with regulation 3;

“relevant national standard” means a standard applicable to a relevant instrument—

- (a) implementing a harmonised standard that has been published in the Official Journal of the European Union C series; and
- (b) the reference of which is published—
  - (i) in the United Kingdom by the Secretary of State; or
  - (ii) in another member State by the competent authority pursuant to the third sub-paragraph of Article 13.1;

“relevant normative document” means a normative document applicable to a relevant instrument, the reference of which is published—

- (a) in the United Kingdom by the Secretary of State; or
- (b) in another member State by the competent authority pursuant to the third sub-paragraph of Article 13.2; and

“United Kingdom notified body” means a person designated under regulation 7.

(2) In these Regulations, a reference to a member State includes Norway, Iceland and Liechtenstein(a).

(3) References in these Regulations to an Article, Annex or a part of an Annex are references to an Article, Annex, or part of an Annex to the Directive.

### **Relevant instrument**

- 3.—(1) A “relevant instrument” is an active electrical energy meter which is for use for trade.
- (2) A relevant instrument is not an instrument which—
  - (a) is of a pattern or construction approved before 30th October 2006 by or under regulations made under paragraph 2 of Schedule 7 to the Electricity Act 1989(b), where such approval has not been revoked under regulations so made; and
  - (b) is—
    - (i) certified under paragraph 5 of that Schedule or excepted from the requirement for certification under paragraph 2(2) of that Schedule; and
    - (ii) put into use, before 30th October 2016.
- (3) A relevant instrument is not an instrument which—

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(a) The application of the Directive 2004/22/EC was extended in 2005 to the European Economic Area by Decision No. 31/205 (O.J. No. L198, 28.7.05, p.20).

(b) 1989 c.29.

- (a) is of a pattern or construction approved before 30th October 2006 by or under regulations made under paragraph 3 of Schedule 7 to the Electricity (Northern Ireland) Order 1992(a), where such approval has not been revoked under regulations so made; and
  - (b) is—
    - (i) certified under paragraph 6 of that Schedule or excepted from the requirement for certification under paragraph 3(2) of that Schedule; and
    - (ii) put into use,
      - before 30th October 2016.
- (4) A relevant instrument is not an instrument—
- (a) in respect of a pattern of which EEC pattern approval was granted before 30th October 2006—
    - (i) under the Measuring Instruments (EC Requirements) (Electrical Energy Meters) Regulations 1995(b); or
    - (ii) by any other member State in accordance with the relevant provisions of measures in force which implement Council Directive 76/891(c),
      - and which is in force; and
  - (b) which bears a mark of EEC initial verification affixed under those Regulations or by any other member State in accordance with those provisions.
- (5) A relevant instrument is not an instrument which is used under an agreement providing for the supply of active electrical energy where—
- (a) the maximum quantity supplied exceeds 100 kilowatts per hour; and
  - (b) the instrument provides measurement on a half-hourly basis.
- (6) A relevant instrument is not an instrument which is not compliant with the essential requirements and which is displayed or presented at a trade fair, exhibition or demonstration, if a sign displayed visibly on or near the instrument clearly indicates that the instrument—
- (a) is not compliant with those requirements; and
  - (b) cannot be acquired or used until it is made compliant with those requirements by the manufacturer.

## PART 2

### PLACING ON THE MARKET AND PUTTING INTO USE OF ACTIVE ELECTRICAL ENERGY METERS

#### **Requirements for placing on the market and putting into use**

4.—(1) No person shall place on the market or put into use a relevant instrument unless the following requirements, or the corresponding requirements of the Directive as implemented under the law of another member State, are met—

- (a) the instrument is compliant with the essential requirements;
- (b) the manufacturer has demonstrated its compliance with the essential requirements in accordance with regulation 5;
- (c) the instrument has affixed to it the CE marking, the M marking and the identification number of the notified body which carried out the conformity assessment procedure in respect of the instrument; and

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(a) S.I. 1992 No. 231 (N.I. 1).

(b) S.I. 1995/2607.

(c) Directive 76/891 on the approximation of the laws of member States relating to electrical energy meters.

- (d) the instrument is put into use in accordance with Part 2 of Schedule 1.
- (2) Where a person fails to comply with the requirements of paragraph (1)(a), (b) or (c)—
  - (a) he shall be guilty of an offence; and
  - (b) any relevant instrument—
    - (i) to which the offence relates; and
    - (ii) which has not been put into use,shall be liable to be forfeited.

### **Compliance with the essential requirements**

5.—(1) A manufacturer may demonstrate that a relevant instrument is compliant with the essential requirements by—

- (a) using any technical solution that is compliant with the essential requirements;
- (b) correctly applying solutions set out in the relevant national standard; or
- (c) correctly applying solutions set out in the relevant normative document,

and selecting and following one of the conformity assessment procedures.

(2) A relevant instrument which is compliant with the relevant national standard or relevant normative document shall be presumed to be compliant with the essential requirements.

(3) Where the relevant instrument is compliant only in part with the relevant national standard or relevant normative document, it shall be presumed to be compliant only with that part of the essential requirements which corresponds to the element of the relevant national standard or relevant normative document with which the instrument is compliant.

### **Conformity assessment procedures**

6.—(1) The conformity assessment procedures are the procedures as follows—

- (a) B and F;
- (b) B and D; and
- (c) H1.

(2) The manufacturer or his authorised representative shall provide to the notified body carrying out the relevant conformity assessment procedure the technical documentation set out in Schedule 3.

(3) In this regulation—

- (a) “B” means type examination, set out in Annex B;
- (b) “D” means declaration of conformity to type based on quality assurance of the production process, set out in Annex D;
- (c) “F” means declaration of conformity to type based on product verification, set out in Annex F; and
- (d) “H1” means declaration of conformity based on full quality assurance plus design examination, set out in Annex H1.

### **Designation of United Kingdom notified bodies**

7.—(1) GEMA, on the application of a person resident, incorporated or carrying on business in Great Britain, and NIAER, on the application of a person resident, incorporated or carrying on business in Northern Ireland, may designate that person to be a United Kingdom notified body.

(2) GEMA (or, as the case may be, NIAER) shall not make a designation under paragraph (1) unless it is satisfied that the person meets the notified body criteria.

(3) A person who meets the criteria laid down in a national standard shall be presumed to meet that part of the notified body criteria which corresponds to the criteria in the national standard.

- (4) A designation under paragraph (1)—
- (a) shall be in writing;
  - (b) may be made subject to such conditions as may be specified in the designation, which may include conditions which—
    - (i) are to apply upon or following termination of the designation;
    - (ii) require the use of test equipment for the purpose of conformity assessment appropriate to the relevant instrument being assessed; and
    - (iii) limit the description of any relevant instrument for which the person is designated;
  - (c) subject to regulation 10, may be for such period as may be specified in the designation;
  - (d) shall specify the conformity assessment procedures and specific tasks (which may be framed by reference to any circumstances) which the person has been designated to carry out; and
  - (e) may include a requirement to publish from time to time the scale of fees which the person charges pursuant to regulation 11 or such information about the basis of calculation of such fees as may be specified.

(5) In exercising the power conferred on it by paragraph (1), GEMA (or, as the case may be, NIAER) may (in addition to the matters of which it is required to satisfy itself pursuant to paragraph (2)) have regard to any matter appearing to it to be relevant.

(6) For the purpose of paragraph (3), “national standard” means a standard applicable to the designation of notified bodies—

- (a) implementing a harmonised standard that has been published in the Official Journal of the European Union; and
- (b) the reference of which is published—
  - (i) in the United Kingdom by the Secretary of State; or
  - (ii) in another member State by the competent authority pursuant to Article 11.2.

### **Functions of notified bodies**

8. A notified body shall carry out the functions set out in Part 2 of Schedule 2.

### **Provisions supplemental to regulation 7**

9.—(1) GEMA (except in relation to designations made by NIAER) and NIAER (in relation to designations made by it) shall, from time to time, publish a list of notified bodies indicating, in the case of each United Kingdom notified body, the descriptions of any relevant instrument in respect of which that notified body is designated; and such a list may include information concerning any condition to which the designation of any United Kingdom notified body is subject.

(2) GEMA (in relation to designations made by it) and NIAER (in relation to designations made by it) shall, from time to time, carry out an inspection of each United Kingdom notified body with a view to verifying that it—

- (a) meets the notified body criteria;
- (b) complies with any condition to which its designation is subject; and
- (c) complies with these Regulations,

but, unless it appears that there are circumstances which make it necessary or expedient to do so, shall not carry out an inspection within two years from the date of designation under regulation 7, or of any later inspection under this paragraph.

### **Variation and termination of designation**

10.—(1) GEMA (in relation to designations made by it) or NIAER (in relation to designations made by it) may vary a designation made under regulation 7 if—



- (a) the United Kingdom notified body so requests; or
  - (b) it appears to GEMA (or, as the case may be, NIAER) necessary or expedient to do so.
- (2) GEMA (in relation to designations made by it) or NIAER (in relation to designations made by it) may terminate a designation made under regulation 7—
- (a) on the expiry of 90 days' notice in writing at the request of the United Kingdom notified body;
  - (b) if it appears to GEMA (or, as the case may be, NIAER) that any condition of the designation is not complied with; or
  - (c) if in the opinion of GEMA (or, as the case may be, NIAER) the United Kingdom notified body ceases to satisfy the notified body criteria.
- (3) Where GEMA (or, as the case may be, NIAER) is minded to—
- (a) vary a designation pursuant to paragraph (1)(b); or
  - (b) terminate a designation pursuant to paragraph (2)(b) or (c),
- it shall—
- (i) give notice in writing to the United Kingdom notified body of its reasons; and
  - (ii) give that notified body the opportunity to make representations within a period of 21 days from the date of that notice and consider any representations made to it within that period.
- (4) If a designation is terminated under paragraph (2), GEMA (or, as the case may be, NIAER) may—
- (a) give such directions (either to the United Kingdom notified body the subject of the termination or to another United Kingdom notified body) for the purposes of making arrangements for the determination of outstanding applications as it considers appropriate; and
  - (b) notwithstanding sub-paragraph (a), authorise another United Kingdom notified body to take over the functions of the United Kingdom notified body the subject of the termination in respect of such cases as GEMA (or, as the case may be, NIAER) may specify.

## **Fees**

11.—(1) A United Kingdom notified body may charge such fees in connection with, or incidental to, the carrying out of conformity assessment procedures or specific tasks as it may determine.

(2) The fees referred to in paragraph (1) shall not exceed the following—

- (a) the costs incurred or to be incurred by the United Kingdom notified body in performing the relevant function; and
- (b) an amount on account of profit which is reasonable in the circumstances having regard to—
  - (i) the character and extent of the work done or to be done by that notified body on behalf of the applicant; and
  - (ii) the commercial rate normally charged on account of profit for that work or similar work..

(3) The power in paragraph (1) includes the power to require the payment of fees or a reasonable estimate of such fees in advance of carrying out the work requested by the applicant.

(4) Where any fees payable to a United Kingdom notified body pursuant to this regulation remain unpaid 28 days after either the work has been completed or payment of the fees has been requested in writing, whichever is the later, the notified body may by 14 days' notice in writing provide that, unless the fees are paid before the expiry of the notice, the certificate or notification appropriate to the relevant conformity assessment procedure will be suspended until payment of the fees has been received.



(5) GEMA or NIAER may charge any person fees to recover the full costs reasonably incurred by it in—

- (a) making a designation under regulation 7; or
- (b) carrying out an inspection under regulation 9.

(6) Where, in accordance with regulation 25, GEMA, acting on behalf of NIAER, makes a designation under regulation 7 or carries out an inspection under regulation 9, GEMA may charge any person fees to recover the full costs reasonably incurred by it in making the designation or carrying out the inspection.

### **Marking and identification requirements**

**12.**—(1) Where a relevant instrument is compliant with the essential requirements—

- (a) the manufacturer shall affix the CE mark and the M mark to the instrument; and
- (b) the notified body which carries out the conformity assessment procedure in respect of that instrument shall affix its identification number to the instrument, or may agree that the manufacturer shall do so on its behalf.

(2) Any other marking may be affixed to the relevant instrument provided that the visibility and legibility of the CE marking, the M marking and the identification number of the notified body are not reduced.

(3) For the purposes of paragraph (1)—

- (a) the CE marking means the symbol “CE”, which shall be compliant with the requirements of paragraphs 1, 4 and 5 of Schedule 4;
- (b) the M marking means the capital letter “M” which shall be compliant with the requirements of paragraphs 2, 4 and 5 of Schedule 4; and
- (c) the identification number of the notified body shall be compliant with the requirements of paragraphs 3, 4 and 5 of Schedule 4.

### **Conformity with other directives**

**13.**—(1) Where a relevant instrument falls within the scope of other directives which provide for the affixing of the CE marking, the affixing of the CE marking under these Regulations shall indicate that the instrument is also presumed to be compliant with the requirements of those other directives.

(2) Where paragraph (1) applies, the publication reference of such other directives in the Official Journal of the European Union must be given in the documents, notices or instructions required to accompany the relevant instrument.

## **PART 3**

### **ENFORCEMENT**

#### **Enforcement authority**

**14.**—(1) The following authorities shall enforce these Regulations—

- (a) GEMA, in relation to England, Wales and Scotland;
- (b) NIAER, in relation to Northern Ireland;
- (c) GEMA, in relation to Northern Ireland, to the extent that any arrangements entered into in accordance with regulation 25 provide that GEMA is to act on behalf of NIAER for, or in connection with, the carrying out of the functions conferred on NIAER under this Part;

(d) any other third party designated to act on behalf of GEMA or (in relation to Northern Ireland) NIAER.

(2) No proceedings for an offence under these Regulations may be instituted in England and Wales, except by or on behalf of an enforcement authority.

(3) Nothing in this regulation shall authorise an enforcement authority to bring proceedings in Scotland for an offence.

### **Unauthorised application of authorised marks**

**15.**—(1) Subject to paragraph (2), a person shall be guilty of an offence if, in the case of a relevant instrument, he—

- (a) affixes an authorised mark to the instrument otherwise than in accordance with these Regulations;
- (b) alters or defaces an authorised mark affixed to the instrument;
- (c) removes an authorised mark affixed to the instrument; or
- (d) affixes any other marking to the instrument which is likely to deceive any person as to the meaning or form, or both, of an authorised mark..

(2) Where the alteration or defacement of an authorised mark is occasioned solely in the course of the adjustment or repair of a relevant instrument by a person regularly engaged in the business of repair of such instruments, or by his authorised agent, that person or his authorised agent, shall not be guilty of an offence under paragraph (1)(b).

(3) A person shall be guilty of an offence if he places on the market or puts into use a relevant instrument—

- (a) which, to his knowledge, bears—
  - (i) an authorised mark affixed otherwise than in accordance with these Regulations;
  - (ii) an authorised mark that has been altered or defaced otherwise than in the circumstances referred to in paragraph (2); or
  - (iii) any marking which is likely to deceive any person as to the meaning or form, or both, of an authorised mark; or
- (b) from which, to his knowledge, an authorised mark has been removed.

(4) Where an offence under this regulation has been committed in respect of a relevant instrument which has not been put into use, the instrument, and any implement used in the commissioning of the offence, shall be liable to be forfeited.

(5) A reference in this regulation to other provisions of these Regulations includes a reference to corresponding provisions under the laws of other member States.

(6) In this regulation, “authorised mark” means the CE marking, the M marking or the identification number of the notified body which carried out the conformity assessment procedure in respect of the relevant instrument.

### **Compliance notice procedures**

**16.**—(1) Where an enforcement authority establishes that, in the case of a relevant instrument that has been placed on the market or put into use, the CE marking or the M marking has, or both have, been affixed unduly, the following provisions of this regulation shall have effect.

(2) The enforcement authority shall serve a compliance notice on the manufacturer or his authorised representative which shall—

- (a) be in writing;
- (b) describe the relevant instrument to which it relates in a manner sufficient to identify that instrument;

- (c) state that the enforcement authority is of the opinion that the CE marking or the M marking has, or both have, been affixed unduly to the relevant instrument and give reasons for its opinion;
  - (d) require the person on whom the notice is served to end the infringement under conditions specified in the notice;
  - (e) specify the date, being not less than 21 days from the date of the notice, by which the infringement must be ended; and
  - (f) warn that person that, where the non-conformity continues beyond the date specified in sub-paragraph (e), the enforcement authority may take further action under regulation 17 in respect of that relevant instrument.
- (3) For the purposes of paragraph (1)—
- (a) the CE marking shall be considered to have been affixed unduly if it is not compliant with the requirements of regulation 12(3)(a); and
  - (b) the M marking shall be considered to have been affixed unduly if it is not compliant with the requirements of regulation 12(3)(b).
- (4) Where an enforcement authority other than GEMA or NIAER serves a compliance notice, it shall at the same time send a copy of the notice to GEMA (or to NIAER, if it is acting on its behalf).
- (5) Where GEMA, acting in accordance with regulation 25, serves a compliance notice, it shall at the same time send a copy of the notice to NIAER.

### **Immediate enforcement action**

- 17.—(1) Where an enforcement authority has reasonable grounds for considering that—
- (a) the manufacturer or his authorised representative has failed to comply with a compliance notice;
  - (b) a relevant instrument, which is placed on the market or put into use, does not bear one or more of the CE marking, the M marking and the identification number of the notified body which carried out the conformity assessment procedure in respect of that instrument; or
  - (c) a relevant instrument which bears the marking and identification requirements referred to in sub-paragraph (b) does not meet the essential requirements when placed on the market, or properly installed and put into use in accordance with the manufacturer's instructions,
- the following provisions of this regulation shall have effect.
- (2) The enforcement authority shall serve an enforcement notice on the manufacturer or his authorised representative which shall—
- (a) be in writing;
  - (b) describe the relevant instrument to which it relates in a manner sufficient to identify that instrument;
  - (c) specify, with reasons, the respects in which, in the opinion of the enforcement authority, the requirements of these Regulations have not been complied with;
  - (d) specify the date, being not less than 21 days from the date of the notice, by which the person to whom the notice is given is required to comply with it; and
  - (e) inform that person of the judicial remedies available to him and of the time limits to which those remedies are subject.
- (3) A notice under paragraph (2) may—
- (a) require the relevant instrument to be withdrawn from the market; or
  - (b) prohibit or restrict the placing on the market or putting into use of the relevant instrument; and
  - (c) specify that unless steps are taken which ensure—

- (i) that the relevant instrument is compliant with the requirements of these Regulations;  
or
- (ii) that the manufacturer or his authorised representative acts as required under subparagraph (a) or (b),

any certificate or notification, issued by a notified body in accordance with the relevant conformity assessment procedure applicable to the relevant instrument that the instrument satisfies the essential requirements, may be withdrawn by that notified body.

(4) Where an enforcement authority other than GEMA or NIAER serves an enforcement notice, it shall at the same time send a copy of the notice to GEMA (or to NIAER, if it is acting on its behalf).

(5) Where GEMA, acting in accordance with regulation 25, serves an enforcement notice, it shall at the same time send a copy of the notice to NIAER.

(6) If, in the case of a certificate or notification granted by a United Kingdom notified body, GEMA (in relation to a notified body which it has designated) or NIAER (in relation to a notified body which it has designated) is of the opinion that consideration ought to be given to whether the certificate or notification should be withdrawn, GEMA (or, as the case may be, NIAER) shall inform that notified body of that fact.

(7) If, in the case of a certificate or notification granted under the law of another member State, GEMA or NIAER is of the opinion that consideration ought to be given to whether the certificate or notification should be withdrawn, it shall inform the relevant competent authority of that fact.

### **Powers of entry and inspection**

**18.**—(1) Subject to the production if so requested of his credentials, an enforcement officer may for the purpose of these Regulations, at all reasonable times—

- (a) inspect and test, or remove for testing, any relevant instrument which has not been put into use in such manner as he considers appropriate;
- (b) inspect and take copies of any document relating to such a relevant instrument; and
- (c) enter any premises at which he has reasonable cause to believe there to be such a relevant instrument, not being premises used only as a private dwelling house.

(2) Subject to the production if so requested of his credentials, an enforcement officer may, at any time, seize and detain—

- (a) a relevant instrument which he has reasonable cause to believe is liable to be forfeited under these Regulations; and
- (b) any document or goods which he has reason to believe may be required as evidence in proceedings for an offence under these Regulations.

(3) If a justice of the peace, on written information on oath—

- (a) is satisfied that there are reasonable grounds to believe that any such relevant instrument or document as is mentioned in paragraph (1) or (2) is on any premises, or that an offence under these Regulations has been, is being or is about to be committed on any premises; and
- (b) is also satisfied either that—
  - (i) admission to the premises has been or is likely to be refused and that notice of intention to apply for a warrant has been given to the occupier; or
  - (ii) an application for admission, or the giving of such a notice would defeat the object of the entry, or that the case is one of urgency, or that the premises are unoccupied or the occupier is temporarily absent,

the justice may by warrant under his hand, which shall continue in force for a period of one month, authorise the enforcement officer to enter the premises, if need be by force.

(4) In the application of paragraph (3) to Scotland, “justice of the peace” includes a sheriff and references to written information on oath shall be construed as references to evidence on oath.

(5) An enforcement officer entering any premises by virtue of this regulation may take such other persons and such equipment as may appear to him necessary, and on leaving such premises which he has entered by virtue of a warrant under paragraph (3), being premises which are unoccupied or the occupier of which is temporarily absent, he shall leave them as effectively secured against a trespasser as he found them.

(6) If an enforcement officer or other person who enters any work-place by virtue of this regulation discloses to any person any information obtained by him in the work-place with regard to any secret manufacturing process or trade secret, he shall, unless the disclosure was made in the performance of his duty, be guilty of an offence.

(7) It shall not be an offence under paragraph (6) for a person to disclose information in circumstances where—

- (a) the person from whom the information was received has consented to its disclosure; or
- (b) the information is disclosed more than 50 years after it was received.

(8) Nothing in this regulation shall authorise any person to stop any vehicle on a highway.

(9) In this regulation, “credentials” means evidence of appointment or designation as an enforcement officer.

### **Obstruction of enforcement officer**

**19.—**(1) A person shall be guilty of an offence if he—

- (a) wilfully obstructs an enforcement officer in the execution of any of his functions under these Regulations; or
- (b) without reasonable cause fails to give that officer any assistance or information which the officer has reasonably required of him for the purpose of the performance by the enforcement authority of its functions under these Regulations.

(2) A person shall be guilty of an offence if, in giving an enforcement officer such information as is mentioned in paragraph (1)(b), that person gives any information he knows to be false.

### **Review of decisions of enforcement authority**

**20.—**(1) Where a person is aggrieved by a compliance notice or an enforcement notice served by an enforcement authority other than GEMA or NIAER, that person may apply to GEMA (or to NIAER, where the enforcement authority is acting on NIAER’s behalf) to review such notice.

(2) An application under paragraph (1) shall—

- (a) be in writing;
- (b) state the grounds on which the application is made;
- (c) be sent to GEMA (or, as the case may be, NIAER) within 21 days from the date of the notice referred to in paragraph (1).

(3) GEMA (or, as the case may be, NIAER) may—

- (a) hold an inquiry in connection with the notice which is the subject of its review; and
- (b) appoint an assessor for the purposes of assisting it with its review.

(4) GEMA (or, as the case may be, NIAER) shall, within a reasonable time, inform the aggrieved person and the enforcement authority referred to in paragraph (1) in writing of its decision whether to uphold the decision of that authority, together with reasons for its decision.

(5) Where GEMA (or, as the case may be, NIAER) does not uphold any notice referred to in paragraph (1), it shall give reasons for the withdrawal of that notice.

### **Penalties for offences**

**21.** A person guilty of an offence under these Regulations shall be liable, on summary conviction, to a fine not exceeding level 5 on the standard scale.

### **Defence of due diligence**

22.—(1) Subject to the following provisions of this regulation, in proceedings against a person for an offence under these Regulations, it shall be a defence for that person to show that he took all reasonable steps and exercised all due diligence to avoid committing the offence.

(2) Where, in proceedings against a person for such an offence the defence provided by paragraph (1) involves an allegation that the commission of the offence was due to—

- (a) the act or default of another; or
- (b) reliance on information given by another,

that person shall not, without the leave of the court, be entitled to rely on the defence, unless, not less than 7 clear days before the hearing of the proceedings (or, in Scotland, the trial diet), he has served a notice in accordance with paragraph (3) on the person bringing the proceedings.

(3) A notice under this regulation shall give such information identifying or assisting in the identification of the person who committed the act or default or gave the information as is in the possession of the person serving the notice at the time he serves it.

(4) A person shall not be entitled to rely on the defence provided by paragraph (1) by reason of his reliance on information supplied by another, unless he shows it was reasonable in all the circumstances for him to have relied on the information, having regard in particular to—

- (a) the steps which he took, and those which might reasonably have been taken, for the purpose of verifying the information; and
- (b) whether he had any reason to disbelieve the information.

### **Liability of persons other than the principal offender**

23.—(1) Where the commission by a person of an offence under these Regulations is due to the act or default of another person in the course of any business of his, that other person shall be guilty of the offence and may be proceeded against and punished, whether or not proceedings are taken against the first person.

(2) Where a body corporate commits an offence and it is proved that the offence was committed—

- (a) with the consent or connivance of an officer of the body corporate; or
- (b) as a result of the negligence of an officer of the body corporate,

the officer, as well as the body corporate, shall be guilty of the offence.

(3) In paragraph (2) a reference to an officer of a body corporate includes a reference to—

- (a) a director, manager, secretary or other similar officer of the body corporate;
- (b) a person purporting to act as a director, manager, secretary or other similar officer; and
- (c) if the affairs of the body corporate are arranged by its members, a member.

(4) In this regulation references to a “body corporate” include references to a partnership in Scotland, and in relation to such partnership, any reference to a director, manager, secretary or other similar officer of a body corporate is a reference to a partner.

## **PART 4**

### **MISCELLANEOUS AND SUPPLEMENTAL**

#### **Adaptation for Northern Ireland**

24. In their application to Northern Ireland, these Regulations shall have effect subject to Schedule 5.



## **GEMA's power to act on behalf of Northern Ireland Regulator**

**25.** GEMA and NIAER shall be entitled—

- (a) to enter into arrangements for GEMA to act on behalf of NIAER for, or in connection with, the carrying out of some or all of the functions conferred on NIAER by these Regulations; and
- (b) to give effect to those arrangements.

## **Service of documents**

**26.—**(1) Any document required or authorised by these Regulations to be served on a person may be so served—

- (a) by delivering it to him or by leaving it at his proper address or by sending it by post to him at that address;
- (b) if the person is a body corporate, by serving it in accordance with sub-paragraph (a) on the secretary or clerk of that body corporate; or
- (c) if the person is a partnership, by serving it in accordance with that sub-paragraph on a partner or on a person having control or management of the partnership business.

(2) For the purposes of paragraph (1), and for the purposes of section 7 of the Interpretation Act 1978<sup>(a)</sup> (which relates to the service of documents by post) in its application to that paragraph, the proper address of any person on whom a document is to be served by virtue of these Regulations shall be his last known address except that—

- (a) in the case of service on a body corporate or its secretary or clerk, it shall be the address of the registered or principal office of the body corporate; and
- (b) in the case of service on a partnership or a partner or a person having the control or management of a partnership business, it shall be the principal office of the partnership,

and for the purposes of this paragraph the principal office of a company registered outside the United Kingdom or of a partnership carrying on business outside the United Kingdom is its principal office within the United Kingdom.

## **Savings for certain privileges**

**27.—**(1) Nothing in these Regulations shall be taken as requiring a person to produce any documents or records if he would be entitled to refuse to produce those documents or records in any proceedings in any court on the grounds that they are the subject of legal professional privilege or, in Scotland, that they contain a confidential communication made by or to an advocate or solicitor in that capacity, or as authorising a person to take possession of any documents or records which are in the possession of a person who would be so entitled.

(2) Nothing in these Regulations shall be construed as requiring a person to answer any question or give any information if to do so would incriminate that person or that person's spouse or civil partner.

(3) Subsection (1) of section 14 of the Civil Evidence Act 1968<sup>(b)</sup> (which relates to the privilege against self-incrimination) shall apply to the right conferred by paragraph (2) as it applies to the right described in subsection (1) of that section; but this paragraph does not extend to Scotland.

## **Consequential modifications of enactments: Great Britain**

**28.—**(1) Schedule 7 to the Electricity Act 1989<sup>(c)</sup> (use etc. of electricity meters) shall have effect in its application to a meter which is a relevant instrument subject to paragraphs (2) to (4) below.

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(a) 1978 c.30.  
(b) 1968 c.64.  
(c) 1989 c.29.



(2) If the meter is put into use within the meaning of and in accordance with these Regulations, it shall, for the purpose of paragraphs 2(1)(a), 3(1)(a) and 9(3) of the Schedule, be deemed to be of an approved pattern or construction and installed in an approved manner; and the following rules shall apply—

- (a) for the purposes of paragraphs 2(1)(b) and 3(1)(b), the meter shall be deemed to be certified under paragraph 5;
- (b) for the purpose of the application of paragraphs 7(1)(c) and (2) and 9(3) and (4), “prescribed margins of error” shall mean the maximum permissible error as set out in paragraph 15 of Schedule 1 to these Regulations.

(3) Paragraphs 5(2)(a) and 7(1)(b) of Schedule 7 must be disregarded.

(4) Paragraph (2)(a) above does not apply if the error of measurement of the meter exceeds the maximum permissible error as set out in paragraph 15 of Schedule 1 to these Regulations.

(5) If a meter which is a relevant instrument is put into use within the meaning of and in accordance with these Regulations—

- (a) regulation 10 of the Meters (Certification) Regulations 1998(a); and
- (b) regulation 3 of the Meters (Approval of Pattern or Construction and Manner of Installation) Regulations 1998(b),

shall not apply to the meter.

#### **Consequential modifications of enactments: Northern Ireland**

**29.**—(1) Schedule 7 to the Electricity (Northern Ireland) Order 1992(c) (use etc. of electricity meters) shall have effect in its application to a meter which is a relevant instrument subject to paragraphs (2) to (4) below.

(2) If the meter is put into use within the meaning of and in accordance with these Regulations, it shall, for the purpose of paragraphs 3(1)(a), 4(1)(a) and 10(3) of the Schedule, be deemed to be of an approved pattern or construction and installed in an approved manner; and the following rules shall apply—

- (a) for the purposes of paragraphs 3(1)(b) and 4(1)(b), the meter shall be deemed to be certified under paragraph 6; and
- (b) for the purpose of the application of paragraphs 8(1)(c) and (2) and 10(3) and (4), “prescribed margins of error” shall mean the maximum permissible error as set out in paragraph 15 of Schedule 1 to these Regulations.

(3) Paragraphs 6(2)(a) and 8(1)(b) of Schedule 7 must be disregarded.

(4) Paragraph (2)(a) above does not apply if the error of measurement of the meter exceeds the maximum permissible error as set out in paragraph 15 of Schedule 1 to these Regulations.

(5) If a meter which is a relevant instrument is put into use within the meaning of and in accordance with these Regulations—

- (a) regulation 10 of the Meters (Certification) Regulations (Northern Ireland) 1998(d); and
- (b) regulation 3 of the Meters (Approval of Pattern or Construction and Manner of Installation) Regulations (Northern Ireland) 1998(e),

shall not apply to the meter.

21st June 2006

*Malcolm Wicks*  
Minister of State for Energy  
Department of Trade and Industry

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(a) S.I. 1998/1566.  
(b) S.I. 1998/1565.  
(c) S.I. 1992 No. 231 (N.I. 1).  
(d) S.R.N.I. 1998 No. 444.  
(e) S.R.N.I. 1998 No. 443.

**PART 1**  
**ESSENTIAL REQUIREMENTS**

1. The essential requirements are the relevant requirements relating to relevant instruments contained in Annex 1 and Annex M1-003 set out in this Part of this Schedule.

**Definitions**

2. In this Schedule—

“climatic environments” means the conditions in which relevant instruments may be used;

“critical change value” means the value at which the change in the measurement result is considered undesirable;

“disturbance” means an influence quantity having a value within the limits specified in the appropriate requirement but outside the specified rated operating conditions of the relevant instrument. An influence quantity is a disturbance if for that influence quantity the rated operating conditions are not specified;

“f” means the frequency of the voltage supplied to the relevant instrument;

“f<sub>n</sub>” means the specified voltage reference frequency;

“I” means the electrical current flowing through the relevant instrument;

“I<sub>max</sub>” means the maximum value of I for which the error lies within the MPEs;

“I<sub>min</sub>” means the value of I above which the error lies within maximum permissible errors (MPEs) (polyphase relevant instruments with balanced load);

“I<sub>n</sub>” means the specified reference current for which the transformer operated relevant instrument has been designed;

“influence quantity” means a quantity that is not the measurand but that affects the result of measurement;

“I<sub>st</sub>” means the lowest declared value of I at which the relevant instrument registers active electrical energy at unity power factor (polyphase relevant instruments with balanced load);

“I<sub>tr</sub>” means the value of I above which the error lies within the smallest MPE corresponding to the class index of the relevant instrument;

“measurand” means the particular quantity subject to measurement;

“MPE” means the maximum permissible error value as set out in paragraph 15;

“PF” means power factor =  $\cos\phi$  = the cosine of the phase difference  $\phi$  between I and U;

“rated operating conditions” means the values for the measurand and influence quantities making up the normal working conditions of a relevant instrument;

“U” means the voltage of the electricity supplied to the relevant instrument; and

“U<sub>n</sub>” means the specified reference voltage.

**Allowable Errors**

3.—(1) The manufacturer shall specify the climatic, mechanical and electromagnetic environments in which the relevant instrument is intended to be used, power supply and other influence quantities likely to affect its accuracy, taking account of the requirements in this Schedule.

(a) Climatic environments—

The manufacturer shall specify the upper temperature limit and the lower temperature limit from any of the values in Table 1 and indicate whether the relevant instrument is designed for condensing or non-condensing humidity as well as the intended location for the relevant instrument, i.e. open or closed.

**Table 1**

	<i>Temperature Limits</i>			
	30 °C	40 °C	55 °C	70 °C
Upper temperature limit	30 °C	40 °C	55 °C	70 °C
Lower temperature limit	5 °C	-10 °C	-25 °C	-40 °C

(b) Mechanical environments—

(i) Mechanical environments are classified into classes M1 to M3 as described below—

M1: This class applies to relevant instruments used in locations with vibration and shocks of low significance, for example, instruments fastened to light supporting structures subject to negligible vibrations and shocks transmitted from, for example, local blasting or pile-driving activities or slamming doors.

M2: This class applies to relevant instruments used in locations with significant or high levels of vibration and shock, for example, transmitted from machines and passing vehicles in the vicinity, or adjacent to heavy machines or conveyor belts.

M3: This class applies to relevant instruments used in locations where the level of vibration and shock is high and very high, for example, instruments mounted directly on machines or conveyor belts.

(ii) The following influence quantities shall be considered in relation with mechanical environments—

- (aa) vibration;
- (bb) mechanical shock.

(c) Electromagnetic environments—

(i) Electromagnetic environments, in relation to relevant instruments that are constructed using electrical components, are classified into classes E1 and E2 as described below.

E1: This class applies to relevant instruments used in locations with electromagnetic disturbances corresponding to those likely to be found in residential, commercial and light industrial buildings.

E2: This class applies to relevant instruments used in locations with electromagnetic disturbances corresponding to those likely to be found in other industrial buildings.

(ii) The following influence quantities shall be considered in relation with electromagnetic environments—

- (aa) voltage interruptions;
- (bb) short voltage reductions;
- (cc) voltage transients on supply lines and/or signal lines;
- (dd) electrostatic discharges;
- (ee) radio frequency electromagnetic fields;
- (ff) conducted radio frequency electromagnetic fields on supply lines and/or signal lines;
- (gg) surges on supply lines and/or signal lines.

(2) Other influence quantities to be considered, where appropriate, are—

- (a) voltage variation;
- (b) mains frequency variation;
- (c) power frequency magnetic fields;

(d) any other quantity likely to influence in a significant way the accuracy of the relevant instrument.

(3) When carrying out the tests as envisaged in these Regulations, the following paragraphs apply to relevant instruments in relation to ambient humidity—

(a) according to the climatic operating environment in which the relevant instrument is intended to be used either the damp heat-steady state (non-condensing) or damp heat cyclic (condensing) test may be appropriate;

(b) the damp heat cyclic test is appropriate where condensation is important. In conditions where non-condensing humidity is a factor the damp-heat steady state is appropriate.

### **Reproducibility**

4. The application of the same measurand in a different location or by a different user, all other conditions being the same, shall result in the close agreement of successive measurements. The difference between the measurement results shall be small when compared with the MPE.

### **Repeatability**

5. The application of the same measurand under the same conditions of measurement shall result in the close agreement of successive measurements. The difference between the measurement results shall be small when compared with the MPE.

### **Discrimination and Sensitivity**

6. A relevant instrument shall be sufficiently sensitive and the discrimination threshold shall be sufficiently low for the intended measurement task.

### **Durability**

7. A relevant instrument shall be designed to maintain an adequate stability of its metrological characteristics over a period of time estimated by the manufacturer, provided that it is properly installed, maintained and used according to the manufacturer's instruction when in the environmental conditions for which it is intended.

### **Reliability**

8. A relevant instrument shall be designed to reduce as far as possible the effect of a defect that would lead to an inaccurate measurement result, unless the presence of such a defect is obvious.

### **Protection against corruption**

9.—(1) The metrological characteristics of a relevant instrument shall not be influenced in any inadmissible way by the connection to it of another device, by any feature of the connected device itself or by any remote device that communicates with the instrument.

(2) A hardware component that is critical for metrological characteristics shall be designed so that it can be secured. Security measures foreseen shall provide for evidence of an intervention.

(3) Software that is critical for metrological characteristics shall be identified as such and shall be secured.

(4) Software identification shall be easily provided by the relevant instrument.

(5) Evidence of a software intervention shall be available for a reasonable period of time.

(6) Measurement data, software that is critical for measurement characteristics and metrologically important parameters stored or transmitted shall be adequately protected against accidental or intentional corruption.

(7) The display of the total quantity supplied or the displays from which the total quantity supplied can be derived, whole or partial reference to which is the basis for payment, shall not be able to be reset during use.

### **Information to be borne by and to accompany the relevant instrument**

**10.**—(1) A relevant instrument shall bear the following inscriptions—

- (a) manufacturer's mark or name;
- (b) information in respect of its accuracy;
- (c) information in respect of the conditions of use;
- (d) measuring range;
- (e) identity marking;
- (f) number of the EC-type examination certificate or the EC design examination certificate; and
- (g) information whether or not additional devices providing metrological results comply with the provisions of these Regulations.

(2) The relevant instrument shall be accompanied by information on its operation, unless the simplicity of the relevant instrument makes this unnecessary. Information shall be easily understandable and shall include where relevant—

- (a) rated operating conditions;
- (b) mechanical and electromagnetic environment classes;
- (c) the upper and lower temperature limit, whether condensation is possible or not, open or closed location;
- (d) instructions for installation, maintenance, repairs, permissible adjustments;
- (e) instructions for correct operation and any special conditions of use;
- (f) conditions for compatibility with interfaces.

(3) Groups of identical relevant instruments used in the same location or used for utility measurement do not necessarily require individual instruction manuals.

(4) The units of measurement used and their symbols shall be in accordance with the provisions of Community legislation on units of measurement and their symbols.

(5) All marks and inscriptions required under any requirement shall be clear, non-erasable, unambiguous and non-transferable.

### **Indication of result**

**11.**—(1) Indication of the result shall be by means of a display or hard copy.

(2) The indication of any result shall be clear and unambiguous and accompanied by such marks and inscriptions necessary to inform the user of the significance of the result. Easy reading of the presented result shall be permitted under normal conditions of use. Additional indications may be shown provided they cannot be confused with the metrologically controlled indications.

(3) In the case of hard copy the print or record shall also be easily legible and non-erasable.

(4) A relevant instrument shall be fitted with a metrologically controlled display accessible without tools to the consumer. The reading of this display is the measurement result that serves as the basis for the price to pay.

### **Conformity evaluation**

**12.** A relevant instrument shall be designed so as to allow ready evaluation of its conformity with the appropriate requirements of these Regulations.

## Accuracy

13. The manufacturer shall specify the class index of the relevant instrument. The class indices are A, B and C.

### Rated operating conditions

14. The manufacturer shall specify the rated operating conditions of the relevant instrument, in particular—

- (a) the values of  $f_n$ ,  $U_n$ ,  $I_n$ ,  $I_{st}$ ,  $I_{min}$ ,  $I_{tr}$  and  $I_{max}$  that apply to the relevant instrument. For the current values specified, the relevant instrument shall satisfy the conditions given in Table 2;

**Table 2**

	<i>Class A</i>	<i>Class B</i>	<i>Class C</i>
For direct-connected relevant instruments			
$I_{st}$	$\leq 0.05 \cdot I_{tr}$	$\leq 0.04 \cdot I_{tr}$	$\leq 0.04 \cdot I_{tr}$
$I_{min}$	$\leq 0.5 \cdot I_{tr}$	$\leq 0.5 \cdot I_{tr}$	$\leq 0.3 \cdot I_{tr}$
$I_{max}$	$\geq 50 \cdot I_{tr}$	$\geq 50 \cdot I_{tr}$	$\geq 50 \cdot I_{tr}$
For transformer-operated relevant instruments			
$I_{st}$	$\leq 0.06 \cdot I_{tr}$	$\leq 0.04 \cdot I_{tr}$	$\leq 0.02 \cdot I_{tr}$
$I_{min}$	$\leq 0.4 \cdot I_{tr}$	$\leq 0.2 \cdot I_{tr}^{(i)}$	$\leq 0.2 \cdot I_{tr}$
$I_n$	$= 20 \cdot I_{tr}$	$= 20 \cdot I_{tr}$	$= 20 \cdot I_{tr}$
$I_{max}$	$\geq 1.2 \cdot I_n$	$\geq 1.2 \cdot I_n$	$\geq 1.2 \cdot I_n$

<sup>(i)</sup> For Class B electromechanical relevant instruments  $I_{min} \leq 0.4 \cdot I_{tr}$  shall apply.

- (b) the voltage, frequency and power factor ranges within which the relevant instrument shall satisfy the MPE requirements are specified in Table 3. These ranges shall recognise the typical characteristics of electricity supplied by public distribution systems;
- (c) the voltage and frequency ranges shall be at least—
- (i)  $0.9 \cdot U_n \leq U \leq 1.1 \cdot U_n$ ;
- (ii)  $0.98 \cdot f_n \leq f \leq 1.02 \cdot f_n$ ;
- (d) the power factor range shall be at least from  $\cos\phi = 0.5$  inductive to  $\cos\phi = 0.8$  capacitive.

### Maximum permissible error (MPE)

15.—(1) Under rated operating conditions and in the absence of a disturbance, the error of measurement shall not exceed the MPE value as set out in Table 3.

(2) MPE as set out below is expressed as a bilateral value of the deviation from the true measurement value.

(3) The effects of the various measurands and influence quantities (a, b, c) are evaluated separately, all other measurands and influence quantities being kept relatively constant at their reference values. The error of measurement, that shall not exceed the MPE stated in Table 3, is calculated as—

$$\text{error of measurement} = \sqrt{a^2 + b^2 + c^2} \dots$$

(4) When the relevant instrument is operating under varying-load current, the percentage errors shall not exceed the limits given in Table 3.

**Table 3**

MPEs in percent at rated operating conditions and defined load current levels and operating temperature

	Operating temperatures			Operating temperatures			Operating temperatures			Operating temperatures		
	+5 °C...+30 °C			-10 °C...+5 °C or +30 °C...+40 °C			-25 °C...-10 °C or +40 °C...+55 °C			-40 °C...-25 °C or +55 °C...+70 °C		
Relevant instrument class	A	B	C	A	B	C	A	B	C	A	B	C

Single phase relevant instrument; polyphase relevant instrument if operating with balanced loads

$I_{\min} \leq I < I_{tr}$	3.5	2	1	5	2.5	1.3	7	3.5	1.7	9	4	2
$I_{tr} \leq I \leq I_{\max}$	3.5	2	0.7	4.5	2.5	1	7	3.5	1.3	9	4	1.5

Polyphase relevant instrument if operating with single phase load

$I_{tr} \leq I \leq I_{\max}$ , see exception below	4	2.5	1	5	3	1.3	7	4	1.7	9	4.5	2
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For electromechanical polyphase relevant instruments the current range for single-phase load is limited to  $5 I_{tr} \leq I \leq I_{\max}$

(5) When a relevant instrument operates in different temperature ranges the relevant MPE values shall apply.

### Permissible effect of disturbances — Electromagnetic environment

16.—(1) Under rated operating conditions and in the presence of a disturbance, the performance requirements shall be as set out below.

(2) Where the relevant instrument is intended to be used in a specified permanent continuous electromagnetic field the permitted performance during the radiated electromagnetic field-amplitude modulated test shall be within MPE.

(3) General

- (a) As relevant instruments are directly connected to the mains supply and as mains current is also one of the measurands, a special electromagnetic environment is used for electricity meters.
- (b) The relevant instrument shall comply with the electromagnetic environment E2 and the additional requirements in sub-paragraphs (4) and (5) below.
- (c) The electromagnetic environment and permissible effects reflect the situation that there are disturbances of long duration which shall not affect the accuracy beyond the critical change values and transient disturbances, which may cause a temporary degradation or loss of function or performance but from which the relevant instrument shall recover and shall not affect the accuracy beyond the critical change values.
- (d) When there is a foreseeable high risk due to lightning or where overhead supply networks are predominant, the metrological characteristics of the relevant instrument shall be protected.

(4) Effect of disturbances of long duration



**Table 4****Critical change values for disturbances of long duration**

Disturbance	Critical change values in percent for relevant instruments of class		
	A	B	C
Reversed phase sequence	1.5	1.5	0.3
Voltage unbalance (only applicable to polyphase relevant instruments)	4	2	1
Harmonic contents in the current circuit <sup>(i)</sup>	1	0.8	0.5
DC and harmonics in the current circuit <sup>(i)</sup>	6	3	1.5
Fast transient bursts	6	4	2
Magnetic fields; HF (radiated RF) electromagnetic field; conducted disturbances introduced by radio-frequency fields; and oscillatory waves immunity	3	2	1

<sup>(i)</sup> In the case of electromechanical relevant instruments, no critical change values are defined for harmonic contents in the current circuits and for DC and harmonics in the current circuit.

**(5) Permissible effect of transient electromagnetic phenomena**

- (a) The effect of an electromagnetic disturbance on a relevant instrument shall be such that during and immediately after a disturbance any output intended for testing the accuracy of the relevant instrument does not produce pulses or signals corresponding to an energy of more than the critical change value; and in reasonable time after the disturbance the relevant instrument shall—
- (i) recover to operate within the MPE limits;
  - (ii) have all measurement functions safeguarded;
  - (iii) allow recovery of all measurement data present prior to the disturbance; and
  - (iv) not indicate a change in the registered energy of more than the critical change value.
- (b) The critical change value in kWh is  $m \cdot U_n \cdot I_{\max} \cdot 10^{-6}$  (m being the number of measuring elements of the relevant instrument,  $U_n$  in Volts and  $I_{\max}$  in Amps).
- (c) For overcurrent the critical change value is 1.5 %.

**Suitability**

17.—(1) A relevant instrument shall have no feature likely to facilitate fraudulent use, whereas possibilities for unintentional misuse shall be minimal.

(2) A relevant instrument shall be suitable for its intended use taking account of the practical working conditions and shall not require unreasonable demands of the user in order to obtain a correct measurement result.

(3) The errors of a relevant instrument at voltages or currents outside the controlled range shall not be unduly biased.

(4) Where a relevant instrument is designed for the measurement of values of the measurand that are constant over time, the instrument shall be insensitive to small fluctuations of the value of the measurand, or shall take appropriate action.

(5) A relevant instrument shall be robust and its materials of construction shall be suitable for the conditions in which it is intended to be used.

(6) When a relevant instrument has associated software which provides other functions besides the measuring function, the software that is critical for the metrological characteristics shall be identifiable and shall not be inadmissibly influenced by the associated software.

(7) Below the rated operating voltage the positive error of the relevant instrument shall not exceed 10 %.

(8) The display of the total energy shall have a sufficient number of digits to ensure that when the relevant instrument is operated for 4000 hours at full load ( $I = I_{\max}$ ,  $U = U_n$  and  $PF = 1$ ) the indication does not return to its initial value and shall not be able to be reset during use.

(9) In the event of loss of electricity in the circuit, the amounts of electrical energy measured shall remain available for reading during a period of at least 4 months.

(10) When the voltage is applied with no current flowing in the current circuit (current circuit shall be open circuit), the relevant instrument shall not register energy at any voltage between  $0.8 \cdot U_n$  and  $1.1 U_n$ .

(11) The relevant instrument shall start and continue to register at  $U_n$ ,  $PF = 1$  (polyphase relevant instruments with balanced loads) and a current which is equal to  $I_{st}$ .

## Units

18. The electrical energy measured shall be displayed in kilowatt-hours or in megawatt-hours.

## PART 2

### PUTTING INTO USE REQUIREMENTS

19.—(1) Subject to sub-paragraph (2), measurements may be performed by means of any relevant instrument provided that the temperature range to which a relevant instrument is exposed is not wider than the range specified by the manufacturer in relation to that relevant instrument in accordance with paragraph 3(1)(a) and Table 1 of this Schedule.

(2) Class A relevant instruments may not be used when operating outside the temperature range of an upper temperature limit of 30 °C to a lower temperature limit of 5 °C.

(3) The person responsible for installing the relevant instrument shall determine the correct current range and assess the climatic environment, so that the relevant instrument is appropriate for the accurate measurement of consumption that is foreseen or foreseeable.

## SCHEDULE 2

Regulations 2(1) and 8

### NOTIFIED BODIES

## PART 1

### NOTIFIED BODY CRITERIA

1. The body, its director and staff involved in conformity assessment tasks shall not be the designer, manufacturer, supplier, installer or user of the relevant instrument that they inspect, nor the authorised representative of any of them. In addition, they may not be directly involved in the design, manufacture, marketing or maintenance of the relevant instrument, nor represent the parties engaged in these activities. The preceding criterion does not, however, preclude in any way the possibility of exchanges of technical information between the manufacturer and the body for the purposes of conformity assessment.

2. The body, its director and staff involved in conformity assessment tasks shall be free from all pressures and inducements, in particular financial inducements, that might influence their judgement or the results of their conformity assessment, especially from persons or groups of persons with an interest in the results of the assessments.

3. The conformity assessment shall be carried out with the highest degree of professional integrity and requisite competence in the field of metrology. Should the body sub-contract specific tasks, it shall first ensure that the sub-contractor meets the requirements of these

Regulations, and in particular of this Schedule. The body shall keep the relevant documents assessing the sub-contractor's qualifications and the work carried out by him under these Regulations at the disposal of GEMA (or NIAER, where that authority designates the body).

4. The body shall be capable of carrying out all the conformity assessment tasks for which it has been designated, whether those tasks are carried out by the body itself or on its behalf and under its responsibility. It shall have at its disposal the necessary staff and shall have access to the necessary facilities for carrying out in a proper manner the technical and administrative tasks entailed in conformity assessment.

5. The body's staff shall have—

- (a) sound technical and vocational training, covering all conformity assessment tasks for which the body was designated;
- (b) satisfactory knowledge of the rules governing the tasks which it carries out, and adequate experience of such tasks; and
- (c) the requisite ability to draw up the certificates, records and reports demonstrating that the tasks have been carried out.

6. The impartiality of the body, its director and staff shall be guaranteed. The remuneration of the body shall not depend on the results of the tasks it carries out. The remuneration of the body's director and staff shall not depend on the number of tasks carried out or on the results of such tasks.

7. The body shall satisfy GEMA (or NIAER, where that authority designates the body) that it has adequate civil liability insurance.

8. The body's director and staff shall be bound to observe professional secrecy with regard to all information obtained in the performance of their duties pursuant to these Regulations, except vis-à-vis the authority of GEMA (or NIAER, where that authority designates the body).

## PART 2 FUNCTIONS

### **Assessment of applications for certificates or notifications**

9.—(1) Subject to paragraph 10, a notified body shall assess an application made by a manufacturer for the issue of—

- (a) a certificate of conformity;
- (b) a design or type examination certificate; or
- (c) a notification of approval of the manufacturer's quality system,

in accordance with the Annex applicable to the relevant conformity assessment procedure in respect of a relevant instrument.

(2) In determining such an application, the notified body—

- (a) shall have regard to the actual or usual environment of the relevant instrument; and
- (b) may have regard to any other standard or other technical criteria appearing to it to be relevant.

(3) Where, in the opinion of the notified body, the relevant instrument to which an application relates is compliant with the essential requirements, it shall issue a certificate or notification in accordance with paragraph 12.

(4) Where, in the opinion of the notified body, the relevant instrument to which an application relates is not compliant with the essential requirements, it shall issue a notice to the applicant in accordance with paragraph 15.

(5) Where a certificate or notification under sub-paragraph (3) is issued by a United Kingdom notified body, it shall send a copy to GEMA (or to NIAER, where that authority has designated the body).

#### **Limitations on duties to exercise functions**

**10.**—(1) A notified body shall not accept an application for a certificate or notification in respect of a relevant instrument unless the application—

- (a) is in writing, in English or another language acceptable to that notified body;
- (b) is accompanied by all relevant documentation, in which all writing is in English or another language acceptable to that notified body; and
- (c) includes particulars of which applicable standards the manufacturer has applied or proposes to apply in respect of the instrument.

(2) A notified body shall not be required to determine an application for a certificate or notification where the manufacturer has not—

- (a) granted the notified body access to a relevant instrument to which the application relates or the production facilities for the instrument (including, where applicable, the production facilities envisaged in relation to a representative instrument) to the extent that the notified body reasonably requests; and
- (b) made available to the notified body such information as it may reasonably require to determine the application.

(3) A notified body shall not be required to carry out the functions referred to in regulation 7(4)(d) if—

- (a) the person making the application has not submitted with the application the amount of the fee which the notified body requires to be submitted with the application pursuant to regulation 11; or
- (b) the notified body reasonably believes that, having regard to the number of applications made to it pursuant to its designation which are outstanding, it will be unable to commence the required work within three months of receiving the application.

#### **Contractors**

**11.**—(1) A notified body may, in exercising its functions—

- (a) arrange for some other person to carry out any test, assessment or inspection on its behalf; or
- (b) require the applicant to satisfy another person with respect to any matter at the applicant's expense.

(2) But nothing in sub-paragraph (1) authorises a notified body to rely on the opinion of another person with regard to whether a relevant instrument is compliant with any of the essential requirements.

(3) Nothing in these Regulations shall preclude a person referred to in paragraph (a) or (b) of sub-paragraph (1) from charging any fee in respect of any work undertaken by him in pursuance of those paragraphs.

#### **Form of certificates and notifications**

**12.** A certificate or notification issued by a notified body shall be in writing and, in addition to the requirements provided for in the conformity assessment procedures shall—

- (a) be in English;
- (b) give the name and address—
  - (i) of the applicant;
  - (ii) where the applicant is not the manufacturer, of the manufacturer;

- (c) be signed by or on behalf of the notified body and give the identification number of the notified body;
- (d) bear—
  - (i) the date of issue; and
  - (ii) the number,
    - of the certificate or notification;
- (e) give particulars of the relevant instrument (where applicable, in relation to each variant) to which it relates sufficient to identify it, and shall state whether the instrument to which it relates is a single item or a representative, or if it covers a number of variants of that instrument; and
- (f) certify that the instrument to which it relates is compliant with the essential requirements.

#### **Conditions in certificates or notifications**

**13.**—(1) A certificate or notification may be unconditional or may be subject to such conditions as the notified body considers appropriate.

(2) Such conditions may include—

- (a) a limitation on the environment for which the relevant instrument is stated to be suitable; or
- (b) a requirement that the instrument is only to be installed at a specific site.

(3) The conditions imposed pursuant to sub-paragraph (1) may be varied in accordance with paragraph 15 by the notified body which issued the certificate or notification and such variation may include the imposition of new conditions or the removal of conditions.

#### **Withdrawal of certificates or notifications**

**14.** The notified body which issued the certificate or notification shall withdraw that certificate or notification in accordance with paragraph 15, if it appears that the relevant instrument to which it relates is not compliant with the essential requirements.

#### **Procedure where a notified body is minded to refuse to give, or to vary or withdraw a certificate or notification**

**15.**—(1) Where a notified body is minded to—

- (a) refuse to issue a certificate or notification;
- (b) vary a certificate or notification (other than at the request of the person to whom it was given); or
- (c) withdraw a certificate or notification,

it shall give the applicant, or the person to whom the certificate or notification was given, a notice in writing—

- (i) giving reasons for the refusal, variation or withdrawal;
- (ii) specifying the date on which the refusal, variation or withdrawal is to take effect; and
- (iii) giving the applicant or person the opportunity to make representations within 21 days from the date of the notice and stating that the notified body shall consider any representations made to it within that period by that applicant or person.

(2) Where a notified body, having considered representations made to it under sub-paragraph (1), remains of the opinion that—

- (a) an application for a certificate or notification should be refused; or
- (b) a certificate or notification should be varied or withdrawn,

it shall give notice in writing to the applicant or the person to whom the certificate or notification was given, and give that applicant or person information about the judicial remedies available to him.

(3) Where a notice is given under sub-paragraph (1) or (2) by a United Kingdom notified body, it shall send a copy to GEMA (or to NIAER, where that authority has designated the body).

## SCHEDULE 3

Regulation 6(2)

### TECHNICAL DOCUMENTATION

1. The technical documentation shall render the design, manufacture and operation of the relevant instrument intelligible and shall permit an assessment of its conformity with the appropriate requirements of these Regulations.

2. The technical documentation shall be sufficiently detailed to ensure—

- (a) the definition of the metrological characteristics;
- (b) the reproducibility of the metrological performances of produced relevant instruments when properly adjusted using appropriate intended means; and
- (c) the integrity of the instrument.

3. The technical documentation shall include insofar as relevant for assessment and identification of the type and/or instrument—

- (a) a general description of the instrument;
- (b) conceptual design and manufacturing drawings and plans of components and circuits;
- (c) manufacturing procedures to ensure consistent production;
- (d) if applicable, a description of the electronic devices with drawings, diagrams, flow diagrams of the logic and general software information explaining their characteristics and operation;
- (e) descriptions and explanations necessary for the understanding of paragraphs (b), (c) and (d), including the operation of the instrument;
- (f) a list of the relevant national standards and/or relevant normative documents, applied in full or in part;
- (g) descriptions of the solutions adopted to meet the essential requirements where the relevant national standards and/or relevant normative documents have not been applied;
- (h) results of design calculations and examinations;
- (i) the appropriate test results, where necessary, to demonstrate that the type and/or instrument is compliant with the requirements of these Regulations under declared rated operating conditions and under specified environmental disturbances; and
- (j) the EC-type examination certificates or EC design examination certificates in respect of instruments containing parts identical to those in the design.

4. The manufacturer shall specify where seals and markings have been applied.

5. The manufacturer shall indicate the conditions for compatibility with interfaces where relevant.

## SCHEDULE 4

Regulation 12(3)

### MARKING AND INSCRIPTIONS

1. The CE marking consists of the symbol “CE” according to the design laid down in paragraph 1.B(d) of the Annex to Decision 93/465/EEC(a). The CE marking shall be at least 5 mm high.
2. The M marking consists of the capital letter “M” and the last two digits of the year of its affixing, surrounded by a rectangle. The height of the rectangle shall be equal to the height of the CE marking. The M marking shall immediately follow the CE marking.
3. The identification number of the notified body concerned shall follow the CE marking and the M marking.
4. When a relevant instrument consists of a set of devices operating together, the markings shall be affixed on the instrument’s main device.
5. The CE marking and the M marking shall be indelible. The identification number of the notified body concerned shall be indelible or self-destructive upon removal. All markings shall be clearly visible or easily accessible.

## SCHEDULE 5

Regulation 24

### ADAPTATIONS FOR NORTHERN IRELAND

1. In regulation 14, for paragraph (2) there shall be substituted the following paragraph—

“(2) No proceedings for an offence under these Regulations may be instituted in Northern Ireland except by an enforcement authority or the Director of Public Prosecutions for Northern Ireland.”.
2. In regulation 18—
  - (a) the reference in paragraph (3) to written information on oath shall be construed as a reference to a complaint on oath; and
  - (b) for paragraph (9) there shall be substituted the following paragraph—

“(9) In this regulation, “credentials” in relation to an enforcement officer, means some duly authenticated document showing that he is authorised to act to exercise the powers conferred on him by this regulation.”.
3. In regulation 27(3), the reference to subsection (1) of section 14 of the Civil Evidence Act 1968 shall be construed as a reference to subsection (1) of section 10 of the Civil Evidence Act (Northern Ireland) 1971(b).

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(a) O.J. No. L220, 30.8.93, p.23.

(b) 1971 c.36.



## EXPLANATORY NOTE

*(This note is not part of the Regulations)*

These Regulations implement Directive 2004/22/EC of the European Parliament and of the Council on measuring instruments (O.J. No. L135, 30.4.04, p.1) (“the Directive”) in relation to active electrical energy meters.

Part 1 provides that these Regulations apply, with certain exceptions, to active electrical energy meters for use for trade which are first placed on the market or put into use on or after the 30th October 2006.

Part 2 deals with the requirements for placing on the market and putting into use. These are that active electrical energy meters are compliant with the essential requirements; that the manufacturer has demonstrated such compliance with the essential requirements; that the meters have the CE marking, the M marking and the identification number of the relevant notified body affixed to them; and that the meters are put into use in the manner set out in Part 2 of Schedule 1 (regulation 4(1)). It is an offence under regulation 4(2) to place on the market and put into use an active electrical energy meter without complying with the requirements of regulation 4(1)(a) to (c); and non-compliance with the requirements of regulation 4(1)(d) would mean the meter would lose the protection afforded by regulations 28 and 29 for meters which are put into use in accordance with the Regulations. The essential requirements are set out Part 1 of Schedule 1. Compliance with the essential requirements can be demonstrated in accordance with the provisions in regulation 5. Regulation 6 sets out the different conformity assessment procedures available to a manufacturer to demonstrate compliance. The technical documentation required is set out in Schedule 3.

Regulations 7 to 11 and Schedule 2 contain provisions relating to the eligibility and designation of persons as notified bodies and the administrative procedures relating to their appointment, functions and fees. Requirements relating to the marking of active electrical energy meters are set out in regulation 12 and Schedule 4. Regulation 13 provides for a presumption of conformity of an active electrical energy meter with other applicable directives conferred by the CE marking.

Part 3 deals with enforcement of these Regulations. Regulation 14 provides that the Regulations shall be enforced by the Gas and Electricity Markets Authority (“GEMA”) in relation to England, Wales and Scotland, and the Northern Ireland Authority for Energy Regulation (“NIAER”) in relation to Northern Ireland. These bodies may appoint other persons to act on their behalf. Regulation 15 details the offences relating to the unauthorised application of authorised marks. Regulation 16 (compliance notice procedure) and regulation 17 (immediate enforcement action) confer powers on the enforcement authorities to take action in respect of non-compliant active electrical energy meters. Regulation 18 provides powers of entry and inspection for enforcement officers. Regulation 19 provides for offences relating to the obstruction of an enforcement officer. Regulation 20 permits a review by GEMA or NIAER of notices issued by other enforcement authorities under regulations 16 and 17. A person guilty of an offence under the Regulations is liable on summary conviction to a fine not exceeding level 5 on the standard scale (which is currently £5,000) (regulation 21). A defence of due diligence in relation to any offence under these Regulations is provided for in regulation 22 and the liability of persons other than the principal offender is set out in regulation 23.

Part 4 (regulations 24 to 29) deals with miscellaneous matters including the application of the Regulations to Northern Ireland to the extent set out in Schedule 5 (regulation 24). Regulation 25 empowers GEMA and NIAER to enter into arrangements for GEMA to act on behalf of NIAER as respects the carrying out of functions under the Regulations. Regulations 28 and 29 make consequential amendments to the existing legislation governing active electrical energy meters.

These Regulations have been notified to the European Commission and the other member States in accordance with Directive 98/34/EC of the European Parliament and of the Council (O.J. No. L204, 21.7.98, p.37), as amended by Directive 98/48/EC of the European Parliament and of the Council (O.J. No. L217, 5.8.98, p.18).

A Regulatory Impact Assessment (RIA) in respect of these Regulations is available and a copy can be obtained from the National Weights and Measures Laboratory (NWML), Stanton Avenue, Teddington, Middlesex TW11 0JZ or from its website at [www.nwml.gov.uk](http://www.nwml.gov.uk). As these Regulations transpose the Directive, a transposition note (TN) setting out how the Government has transposed the Directive into United Kingdom law has been prepared. Copies of the RIA and TN are available from NWML as above. Copies of these documents have been placed in the libraries of both Houses of Parliament.