# GUIDELINES ON THE APPLICATION OF COUNCIL DIRECTIVE 89/336/EEC OF 3 MAY 1989 ON THE APPROXIMATION OF THE LAWS OF THE MEMBER STATES RELATING TO ELECTROMAGNETIC COMPATIBILITY AMENDED BY DIRECTIVES 92/31/EEC AND 93/68/EEC

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# *NOTES*

1. *These guidelines are intended to be a manual for all parties directly or indirectly affected by the EMC (electromagnetic compatibility) Directive.*

2. *These guidelines were drawn up by the Commission in collaboration with the group of government experts, representatives of European industry and the European standardization bodies. They are available to the public, but should not be considered to represent the Commission's official position.*

3. *Finally, the reader's attention is drawn to the fact that where there are discrepancies between the EMC Directive and these guidelines, the text of the Directive takes legal precedence.*

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## 1. INTRODUCTION[1]

The main aim of this document is to clarify certain matters and procedures referred to in Directive 89/336/EEC,[2] *amended by Directives 92/31/EEC*[3] *and 93/68/EEC,*[4] concerning electromagnetic compatibility, with a view to compiling an operations manual for use in conjunction with the Directive.

In view of the breadth of the scope of the Directive and the variety of products covered, it has become necessary to address this document not only to the Member States but also to the main economic operators concerned, viz. the organizations representing the industry and the bodies affected by the conformity evaluation procedures.

First and foremost, therefore, this document must ensure that the proper uniform application of the Directive leads to the removal of the obstacles and difficulties which any of the groups concerned may encounter.

The EMC Directive is a new-approach directive laying down equipment protection requirements and leaving it to standards, primarily harmonized standards or, failing that, national standards, to define product characteristics.

The EMC Directive is a total harmonization directive, i.e. its provisions replace the national provisions concerned.

The EMC Directive had to be transposed into national law by 1 July 1991. Its provisions have applied since 1 January 1992.

However, the wide scope of the EMC Directive has demonstrated the overriding need to provide for a transitional period, so as to ensure a harmonious changeover from the application of systems of a purely national character to an exclusive Community system.

That is why, on 28 April 1992, the Council adopted Directive 92/31/EEC with a view to allowing a transitional period until 31 December 1995.

During this transitional period, a manufacturer had the choice of placing on the market/putting into service :

- products manufactured in accordance with the EMC Directive, whereby the free movement of the product was guaranteed pursuant to the Directive, or

- products manufactured in accordance with national regulations or possibly with technical specifications of a non-mandatory nature, whereby free movement of the product was guaranteed pursuant to Article 30 of the EEC Treaty, albeit subject to the possible derogations provided for in Article 36 and the jurisprudence of the European Community Court of Justice.

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1 These guidelines are the first revised version of those published on 25/26 October 1993.

2 OJ No L 139, 23.5.1989.

3 OJ No L 126, 12.5.1992.

4 OJ No L 220, 30.3.1993.

Consequently, it is clear that, if during the transitional period the choice of system to be applied was left to the manufacturer, then conformity to the Directive would have greatly facilitated the free access of the product to the Community market. In particular, free access of a product conforming to the Directive was guaranteed, even if a pre-existing national regulation still in force during the transitional period was more binding.

As of 1 January 1996, Member States have abolished national regulations concerning electromagnetic compatibility and apply the provisions of the Directive for all equipment.

## 2. DEFINITIONS[1]

### 2.1. Placing of a product on the market

This means the first making available, against payment or free of charge, of a product covered by the Directive in the Community market for the purpose of distribution and/or use on the Community territory.

Comments :

The concept of placing on the market determines the moment when a product passes for the first time from the manufacturing stage on the market of the Community or the importing stage from a third country to that of distribution and/or use in the Community territory. Since the concept of placing on the market refers only to the first time a product is made available in the Community for the purpose of distribution or use in the Community market, the EMC Directive covers only new products manufactured within the Community and only new or used products imported from a third country.

The placing of a product on the market does not concern :

- the disposal of the product from the manufacturer to his authorized representative established within the Community who is responsible for the manufacturer for ensuring compliance with the Directive;

- importation into the Community market for the purpose of re-exportation, i.e., under the processing traffic system;

- the manufacture of the product in the Community market for the purpose of exportation to a third country;

- the display of the product at trade fairs and exhibitions.

As far as the requirements of the EMC Directive are concerned, the placing of a product on the Community market, as defined above, may therefore be carried out either by the manufacturer himself or by his authorized representative established within the Community. If neither the manufacturer nor his representative is established within the Community, then any person placing the product on the Community market is obliged to retain at the disposal of the competent authority the EC declaration of conformity and/or the technical file.

### 2.2. Putting a product into service

This means the first use in the Community territory, by its final user, of a product referred to in the Directive.

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(1) See the "Guide to the implementation of Community harmonisation directives based on the New Approach and the Global Approach", sheet I/B.

Comments :

A product covered by the EMC Directive is put into service when it is first used.

Where a product is manufactured in the Community or imported from a third country, purely for the use of the manufacturer or importer, confusion arises between the concepts of placing on the market and putting into service. It is at the stage of the first use that the obligation to ensure conformity with the Directive takes effect.

However, under the terms of the EMC Directive, this definition does not preclude the possibility of imposing the special conditions provided for in Article 6 of the Directive on the basis of a Community procedure, enabling the Member States to take special measures with regard to:

- the putting into service and use of equipment on a particular site (e.g., an airport), in order to remedy an existing or foreseeable electromagnetic compatibility problem;

- the installation of equipment in order to protect the public telecommunications networks or the receiving or transmitting stations used for security reasons.

However, these special measures must be limited in scope and must be communicated to the Commission and the other Member States. The Commission, for its part, will publish appropriate information in the Official Journal of the European Communities in respect of those special measures deemed to be justified.

### 2.3. Manufacturer

This is the person who accepts responsibility for the design and manufacture of a product covered by the Directive with a view to placing it on the Community market on his own behalf.

Comments :

The manufacturer is subject to the following obligations for which he bears responsibility:

- to design and manufacture the product in accordance with the protection requirements laid down in the Directive;

- to follow the procedures for certification of the conformity of the product with the protection requirements laid down in the Directive.

The manufacturer may subcontract certain operations, e.g., product design where he himself is responsible for actual manufacture or production where he handles the design aspects, provided that he retains overall control and responsibility for the product as a whole. By the same token, he may use ready-made items or components to produce the product without forfeiting his manufacturing status.

## 2.4. Authorized representative

This is the person who is expressly appointed by the manufacturer and acts on his behalf in respect of certain obligations laid down in the Directive. The extent to which the authorized representative may enter into commitments binding on the manufacturer is determined in accordance with the mandate conferred on him by the latter.

Comments :

If a manufacturer appoints an authorized representative, the latter must be established within the Community.

Articles 10(1) and 10(2) of the EMC Directive define the obligations incumbent on the authorized representative established within the Community with regard to the conformity assessment procedures, CE marking, EC declaration of conformity and the arrangements for holding this EC declaration of conformity, together with the technical file, at the disposal of the competent authorities.

## 2.5. Importer

This is the person who places on the Community market a product covered by the Directive and imported from a third country.
Under the terms of the Directive (Article 10(1), third paragraph, and Article 10(2), third paragraph), the importer must keep the manufacturer's declaration of conformity and the technical file at the disposal of the competent authorities, where neither the manufacturer nor his authorized representative is established within the Community.

## 3. ELECTROMAGNETIC PHENOMENA COVERED BY THE DIRECTIVE

Article 4 states that "the apparatus referred to in Article 2 shall be so constructed that :

a) the electromagnetic disturbance it generates does not exceed a level allowing radio and telecommunications equipment and other apparatus to operate as intended;

b) the apparatus has an adequate level of intrinsic immunity against electromagnetic disturbance to enable it to operate as intended."

The protection requirements of the Directive are therefore laid down in terms of objectives, while the limit values and methods of measurement must be given in the harmonized standards.

Annex III sets out the principle protection requirements in a general manner and adds a non-exhaustive list of categories of products to which they apply, specifying with regard to immunity that "apparatus, and especially the apparatus referred to in (a) to (l), should be constructed in such a way that it has an adequate level of electromagnetic immunity in the usual electromagnetic compatibility environment where the apparatus is intended to work, so as to allow its unhindered operation, taking into account the levels of disturbance generated by apparatus complying with the standards laid down in Article 7".

## 4. SCOPE OF THE DIRECTIVE

### 4.1. General

According to Articles 1(1) and 2(1), the Directive applies to "all electrical and electronic appliances together with equipment and installations containing electrical and/or electronic components liable to cause electromagnetic disturbance or the performance of which is liable to be affected by such disturbance".

The Directive applies to a vast range of equipment encompassing as broadly as possible all electrical appliances, equipment and installations, energy distribution and transport as well as telecommunications networks. In particular, the Directive does not impose any lower or upper limits on the equipment as regards power output or usage or transmitting frequencies.

The Directive therefore directly covers several sectors of electrical and electronic engineering, in particular household appliances information technology data-processing equipment and telecommunications equipment.

However, in the context of and studying the EMC Directive it is possible to specify the scope more closely.

### 4.2. Apparatus covered by the EMC Directive

The following list is not restrictive but it does list a range of apparatus which must be regarded as covered by the EMC Directive.

a) Emission and immunity aspects

- Electrical household appliances, portable tools and similar equipment (last recital of the EMC Directive and Annex III(g));
- Radio equipment used by radio amateurs if it is available commercially, e.g. walkie-talkies, CB equipment (Article 2(3) and Annex III(c) and (d));
- Radio and television receivers (Annex III(a);
- Aeronautical and marine radio apparatus (Annex III(h));
- Radio and television broadcast transmitters (Annex III (k));
- Fluorescent lighting luminaires fitted with starters (last recital of the EMC Directive);
- Lights and fluorescent lamps (Annex III(l));

- Industrial equipment (Annex III(b);

- Telecommunications apparatus (Annex III(j));

- Information technology equipment (Annex III (f));

- Educational electronic equipment (Annex III(i));

When such equipment is intended for studying electromagnetic phenomena, the level of emitted disturbance can exceed the levels of the protection requirements laid down in Article 4 of the EMC Directive.

However, the training, research or educational establishment shall take all necessary measures to ensure that a piece of equipment installed outside the electromagnetic environment can function properly.

b) Emission and immunity aspect

- Emission and immunity aspects for telecommunications terminal equipment (covered by Directive 91/263/EEC[1] and satellite earth station equipment (covered by Directive 93/97/EEC[2] insofar as the protection requirements are not specific to such equipment. For all electromagnetic compatibility phenomena, the provisions of the three directives have to be observed on a complementary basis. For all equipment covered by these directives, including radiocommunications transmitters, it is necessary to apply the procedures of Article 10(1) or 10(2) of Directive 89/336/EEC relating to electromagnetic compatibility aspects.[3]

c) The emission aspect only

- Non-automatic weighing instruments (the immunity aspect is covered by Annex I, paragraph 8(2), of Directive 90/384/EEC).

d) The immunity aspect only

- Agricultural and forestry tractors (the emission aspect is covered by Directive 75/322/EEC);

### 4.3. Apparatus excluded from the EMC Directive

Article 2(2) of the EMC Directive states that "in so far as protection requirements specified in this Directive are harmonized, in the case of certain apparatus, by specific directives, this Directive shall not apply or shall cease to apply with regard to such apparatus or protection requirements upon the entry into force of those specific directives".

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(1) OJ No L 128, 23.5.1991, amended by Directive 93/68/EEC, OJ No L 220, 30.8.1993.

(2) OJ No L 290, 24.11.1993, amended by Directive 93/68/EEC, OJ No L 220, 30.8.1993.

(3) However, for radiocommunications transmitters not covered by Directives 91/263/EEC and 93/97/EEC, the procedure laid down in Article 10(5) of Directive 89/336/EEC applies.

However, if the EMC aspect for a given apparatus or category of apparatus is dealt with in a specific directive, for particular reasons of protection and/or safety, the latter must specify the requirements to be complied with.

The following list is not restrictive but specifies a range of apparatus which is explicitly excluded.

a) The emission and immunity aspects

- Radio equipment used by radio amateurs unless the apparatus is available commercially (Article 2(3).

  This exclusion has been stipulated because of the specific nature of the activity pursued by radio amateurs, which does not constitute any kind of commercial transaction. Radio amateurs are persons carrying out experimental activities within the field of radio communications, according to definition No 53 of the ITU Radio Regulation.

  On the other hand, CB (citizen's band) equipment is not considered to be radio amateur equipment but consumer electronics and therefore comes within the scope of the Directive.

- Motor vehicles : they are covered by specific Directive 72/245/EEC[1] amended by Directive 95/54/EC[2]

- Active implantable medical devices (covered by specific Directive 90/385/EEC);[3]

- Medical devices (covered by specific Directive 93/42/EEC),[4] after the end of the transitional period scheduled for 14 June 1998;

- Council Regulation (EEC) No 3922/91 of 16 December 1991[5] concerning equipment intended for use in operating an aircraft in flight;

- Marine equipment covered by the proposal for a Directive COM (95) 269 final[6] as soon as this proposal for a Directive is adopted and implemented in full.

b) The emission aspect only

- Agricultural or forestry tractors (covered by Directive 75/322/EEC).

c) The immunity aspect only

- Non-automatic weighing instruments (covered by Annex I, paragraph 8(2), of Directive 90/384/EEC).

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(1) OJ No L 152, 6.7.1972.
(2) OJ No L 266, 8.11.1995
(3) OJ No L 189, 20.7.1990.
(4) OJ No L 169, 12.7.1993
(5) OJ No L 373, 31.12.1991.
(6) OJ No C 218, 23.8.1995.

### 4.4. Application of the Directive to apparatus

Articles 1§1 and 2§1 of the EMC Directive stipulate that the Directive applies to "*apparatus*",[1] i.e.:

- *electrical or electronic appliances;*
- *equipment containing electrical and/or electronic components;*
- *and installations containing electrical and/or electronic components.*

In the context of the EMC Directive, "apparatus" is defined as a finished product containing electrical and/or electronic components, and intended to be placed on the market and/or taken into service as a single commercial unit.

However, in order to make the EMC Directive, particularly the scope of the Directive and the conformity assessment procedures to be followed, easier to understand, it is necessary to add further criteria or clarifications to some of the terms used and provisions laid down in the Directive, taking account of practice in this sector, particularly for:

- systems;
- installations;
- components.

### 4.5. Application of the Directive to systems

In many branches of industry, particularly in the information technology sector, it is common for the same manufacturer to place on the market as a single functional unit a combination of apparatus designed and manufactured to operate together to perform a specific task.

From the design phase they are intended to operate as a consistent and compatible system.

A computer system consisting of a keyboard, printer, screen, tape or diskette reader, mouse, etc... is a typical example of the systems commonly developed by industry.

Depending on the normal intended use of the system, it is up to the manufacturer to examine and follow either the system approach or the modular approach and to ensure that the provisions of the Directive are observed.

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(1) To apparatus liable to cause electromagnetic disturbances or whose performance is liable to be affected by such disturbance. See Chapter 3.

If the system is placed on the market as a single functional unit, the system as a whole, and not each constituent part must comply with the provisions of the EMC Directive and, in particular; observe the conformity assessment procedures.

### 4.6. Application of the Directive to installations

Under Articles 1(1) and 2(1) the Directive applies to installations containing electrical and/or electronic components.[1]
"Installation", in the broadest sense, could be defined as a combination of items of apparatus, equipment and/or components put together at a given place and in a given environment to fulfil a specific objective.

i) Based on this definition, installations consisting of apparatus or equipment complying with the EMC Directive, i.e. placed on the market and/or taken into service in line with their intended purpose and accompanied by the instructions for use provided for in the Directive, must be considered.

   In this case, the person responsible for taking into service the installation (considered as a single functional unit) is responsible for checking that the assembly instructions laid down by the manufacturer have been observed for ensuring compliance with the requirements concerning electromagnetic compatibility.

ii) Another possibility would be that installations consisting of apparatus, equipment and components manufactured and intended for a given installation, would be defined by the person responsible for taking the installation into service. In this case, the person taking the installation into service is responsible for compliance with the provisions of the Directive.[2]

### 4.7. Application of the Directive to components

#### 4.7.1. Grounds

The EMC Directive contains no provisions for components, sub-assemblies, devices or other units intended for incorporation in electrical or electronic apparatus, equipment or installations.

However, where electromagnetic compatibility is concerned, common industrial, technical and commercial practice has revealed that it is sometimes difficult to decide which category (i.e. electrical or electronic apparatus, equipment or installation) a given product belongs. In other words, it is sometimes difficult to say whether it must be regarded as "apparatus", as defined in Article 1(1), or if it is just a component or a sub-assembly.

Everybody knows that components can be placed on the market for distribution and/or use as a single commercial unit. For example, electric motors and electronic circuit boards, sometimes complex, are commonly available to the general public from specialized shops.

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(1) See footnote 1 to paragraph 4.4.
(2) As regards the affixing of the CE marking, see Chapter 9.

However, products of this type do not have to comply with the rules in the Directive unless they are considered equivalent to "apparatus", as defined in Article 1(1) of the Directive.

Accordingly, manufacturers must bear in mind the following criteria:

- the "end use" of the component:

  Is the product intended exclusively for an industrial assembly operation for incorporation in "apparatus", as defined in Article 1(1)?

  or is it also intended to be marketed individually for distribution and/or use as a single commercial unit?

- if so, does it perform a "direct function"?

**4.7.2. Components not intended to be placed on the market**

This is the case with components designed, manufactured and intended for incorporation in "apparatus".

These components are not placed on the market for distribution and/or use.(1)

Components of this type are not considered "apparatus", as defined in the EMC Directive, and are not subject to the rules laid down in the Directive.

But the end product containing the components must comply with the EMC Directive.

**4.7.3. Components intended to be placed on the market**

This category covers components which, in accordance with the end use criterion, are placed on the market for distribution and use. Such components need not comply with the rules in the Directive unless they are considered equivalent to "apparatus", as defined in the Directive, i.e. unless they **perform a direct function**.

*"Direct function" means any function which meets the needs of a user and which can be directly used by such a user, without the need to make any further adjustments other than any connections essential for its electrical power supply or for the exchange of analogue or digital signals.*

(1) As an electromagnetic interaction could occur between the component and the apparatus, certain protective measures must be taken in terms of electromagnetic compatibility. Component manufacturers are recommended to take account of electromagnetic compatibility phenomena which could affect the end product and to supply the end-user with all the information necessary for correct incorporation of the component into the end product.

#### 4.7.3.1. Components performing no direct function

Although components always fulfil a function within the apparatus in which they are incorporated, they do not in themselves perform a direct function. For example, a cathode-ray tube performs a function within the visual display monitor in which it is installed, but only the monitor supplies the user with the direct function sought, i.e. that of the visual display screen.

The cathode-ray tube performs no direct function and cannot, therefore, be regarded as "apparatus" but is a component, whereas the monitor is an apparatus.
In the same way, similar examples are:

- electrical or electronic components forming part of electrical or electronic circuits;
  - resistors, capacitors, coils, miniaturized transformers;
  - diodes, transistors, thyristors, triacs, etc.;
  - integrated circuits;
- cables and cabelling accessories;
- plugs, sockets, terminal blocks, etc.;
- current sources such as accumulators, batteries, etc.;
- cathode-ray tubes, LEDs, liquid-crystal visual display screens, etc.

These types of components with no direct function are not considered as apparatus within the meaning of the EMC Directive. The EMC Directive does not apply to them.

#### 4.7.3.2. Components performing a direct function

Components, some complex, can be placed on the market in specialized stores for distribution and/or taking into service.

Slide-in circuit boards, such as smart cards or input/output modules, designed for incorporation in microcomputers are products easily found in chain stores open to the general public. Once cards of this type are inserted in a PC they perform a direct function for the user. They must therefore be considered as equivalent to electrical or electronic apparatus and, consequently, as subject to the rules in the EMC Directive.

Similar examples include:

- slide-in electronic cards for computer systems, micro-processor cards, central processing unit cards, electronic mail cards, telecommunication cards, etc.;
- control cards, cards for regulating industrial processes, etc.;
- modular numeric control equipment for:

  - machine tools
  - lift controls
- PC disk readers;
- electricity supply units, where they take the form of autonomous equipment;
- battery chargers;
- electronic temperature controls;
- DIY kits (DIY kits must be designed to ensure compliance with the protection requirements when the parts of the kit are assembled in accordance with the manufacturer's instructions).

Components performing a direct function and placed on the market for distribution and/or taking into service are considered apparatus within the meaning of the EMC Directive. The EMC Directive applies to them.(1)

(1) It must be accompanied by instructions for use. See Chapter 7.

## 5. PROCEDURES FOR ASSESSMENT OF THE CONFORMITY OF PRODUCTS INTENDED TO BE PLACED ON THE MARKET

Article 10 of the Directive specifies three procedures for assessment of the conformity of apparatus :

- Article 10(1) describes the procedure in the case of apparatus for which the manufacturer has applied harmonized standards;

- Article 10(2) describes the procedure where the manufacturer has not applied the standards, or has applied them only in part, or in the absence of standards;

- Article 10(5) describes the specific procedure for apparatus designed for the transmission of radiocommunications.

Although the EMC Directive does not refer specifically to the modules set out in Council Decision 93/465/EEC[1] the following information, based on these modules, is nevertheless included for guidance.

### 5.1. Procedure for the assessment of conformity in accordance with Article 10(1)

This article describes the procedure whereby the manufacturer or his authorized representative established within the Community ensures and declares that the products concerned conform to the harmonized standards applicable to them. The manufacturer or his authorized representative established within the Community affixes the CE marking and draws up a written declaration of conformity. The manufacturer or his authorized representative established within the Community keeps this conformity declaration at the disposal of the competent authorities for inspection purposes for a period of ten years after the equipment was placed on the market.

Where neither the manufacturer nor his authorized representative is established within the Community, the obligation to keep the conformity declaration available is the responsibility of the person who places the product on the Community market, this means the importer as defined in paragraph 2.5 of this document.

The general content of the declaration of conformity is set out in Annex I to the Directive (see also Chapter 6).

The manufacturer takes all measures necessary in order that the manufacturing process ensures compliance of the manufacturer's products described in the declaration of conformity with the protection requirements in the Directive that apply to them.

### 5.2. Procedure for the assessment of conformity in accordance with Article 10(2)

This article describes the procedure whereby the manufacturer or his authorized representative established within the Community ensures and declares that the products concerned satisfy the protection requirements of the Directive that apply to them where the manufacturer has not applied the harmonized standards, or has applied them only in part, or in the absence of standards. The manufacturer or his authorized representative established in the Community affixes the CE marking and draws up a written declaration of conformity.

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(1) OJ No L 220, 30 August 1993.

From the time the product is placed on the market, the manufacturer keeps a technical construction file[1] at the disposal of the competent authorities. This technical construction file must contain all the technical data needed in order to assess the product and must include a certificate or technical report[2] obtained from a competent body.[*]

For the purposes of the assessment, the technical data must include the following essential information :

- a general description of the product;
- design and manufacturing drawings together with layout diagrams covering components, sub-assemblies, circuits, etc.;
- descriptions and explanations needed in order to understand the abovementioned drawings and diagrams as well as the operational aspects of the product;
- list of standards applied in whole or in part and description of the solutions adopted in order to comply with the protection requirements of the Directive in cases where the standards have not been applied;
- design calculation results arising from the control tests;
- test results.

The manufacturer or his authorized representative established within the Community keeps this documentation at the disposal of the relevant authorities for inspection purposes for a period of ten years after the equipment was placed on the market.

Where neither the manufacturer nor his authorized representative is established within the Community, the obligation to keep the technical documentation available is the responsibility of the person who places the product on the Community market, this means the importer as defined in paragraph 2.5 of this document.

It is therefore in the manufacturer's interest to ask a competent body or a notified body[3] of his choice to draw up a technical report or certificate before the product is placed on the market. As a technical report and a certificate are equivalent, it is sufficient to obtain one of them for the product to be marketed throughout the Community.

The manufacturer or his authorized representative established within the Community keeps, with the technical construction file, a copy of the declaration of conformity.

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(1) For further details, see the "Guide to the implementation of the Community harmonisation based on the New Approach and the Global Approach", sheet II/D.

(2) The technical report or certificate attests that the product conforms solely with those protection requirements laid down in the Directive that are not covered by the application of the harmonized standards.

(*) A product type and hence the technical file certificate or technical report may cover several variants of the proudct insofar as the differences between the variants do not affect the level of requirements in terms of electromagnetic compatibility.

(3) Article 10(2) refers solely to competent bodies. However, a notified body pursuant to Article 10(5) is empowered to act as a competent body, provided that it has been recognized as such.

The manufacturer takes all measures necessary in order that the manufacturing process ensures compliance of the manufactured products with the technical construction file and the protection requirements of the Directive that apply to them.

### 5.3. Procedure for the assessment of conformity in accordance with Article 10(5)

This article describes that part of the procedure by which a notified body ascertains and attests that a specimen representative of the production envisaged, meets the provisions of the Directive that apply to it.

The application for EC type-examination is lodged by the manufacturer or his authorized representative established within the Community with a notified body of his choice.

The application includes :

- the name and address of the manufacturer and, if the application is lodged by the authorized representative, his name and address in addition,

- a written declaration that the same application has not been lodged with any other notified body,

- the technical documentation described below.

The applicant places at the disposal of the notified body a specimen representative of the production envisaged and hereinafter called "type". The notified body may request further specimens if needed for carrying out the test programme.

The notified body may, on its own responsibility, commission an independent laboratory to carry out the appropriate examinations and tests.

The technical documentation must enable the conformity of the product with the protection requirements of the Directive to be assessed. It must, for the purposes of such assessment, cover the design, manufacture and operation of the product.

The notified body :

- examines the technical documentation, verifies that the type has been manufactured in conformity with it and identifies the components which have been designed in accordance with the relevant provisions of standards refered to in article 7 and those which have been designed without applying the relevant provisions of the standards;

- performs or has performed the appropriate examinations and necessary tests to check whether, where the standards have not been applied, the solutions adopted by the manufacturer meet the essential protection requirements of the Directive;

- performs or has performed the appropriate examinations and necessary tests to check whether, where the manufacturer has chosen to apply the relevant standards, these have actually been applied;

- agrees with the applicant the location where the examinations and necessary tests are to be carried out.

Where the type meets the provisions of the Directive, the notified body issues an EC type-examination certificate to the applicant. The certificate contains the name and address of the manufacturer, conclusions of the examination, conditions for the validity of the certificate and the necessary data for the identification of the approved type.

A list of the relevant parts of the technical documentation is annexed to the certificate and a copy kept by the notified body.

If the manufacturer is denied a type certification, the notified body provides detailed reasons for such denial.

Provision must be made for an appeals procedure.

The applicant informs the notified body that holds the technical documentation concerning the EC type-examination certificate of all modifications to the approved product which must receive additional approval where such changes may affect the conformity with the protection requirements or the prescribed conditions for use of the product. This further approval is given in the form of an addition to the original EC type-examination certificate.

Each notified body communicates to the other notified bodies the relevant information concerning the EC type-examination certificates and additions issued and withdrawn.

The other notified bodies may receive copies of the EC type-examination certificates and/or their additions. The annexes to the certificates are kept at the disposal of the other notified bodies.

The manufacturer or his authorized representative keeps with the technical documentation copies of EC type-examination certificates and their additions for a period of ten years after the equipment has been placed on the market.

On the basis of the EC type-examination certificate, the manufacturer declares that the series-manufactured products are in conformity with the type described in the certificate and satisfy the protection requirements of the Directive. The manufacturer or his authorized representative established in the Community affixes the CE marking and draws up a written declaration of conformity.

The manufacturer takes all necessary measures in order that the manufacturing process ensures compliance of manufactured products with the type as described in the EC type as described in the EC type-examination certificate and with the protection requirements of the Directive.

The manufacturer or his authorized representative established within the Community keeps a copy of the declaration of conformity for a period of ten years after the equipment has been placed on the market.

Where neither the manufacturer nor his authorized representative is established within the Community, the obligation to keep the copy of the conformity declaration available is the responsibility of the person who places the product on the Community market.

## 6. DECLARATION OF CONFORMITY

The declaration of conformity provided for in Article 10 of the Directive is important both for assessment of the conformity of the apparatus and for the procedure for monitoring the market.

The declaration of conformity is drawn up by the manufacturer or by the manufacturer's authorized representative established within the Community.

Where neither the manufacturer nor his authorised representative is established within the Community the obligation to keep available the CE declaration of conformity shall be of the responsibility of the person who places the apparatus on the Community market.

A copy of the declaration of conformity is kept at the disposal of the competent authority for inspection purposes under the same conditions as the technical file.
Paragraph 1 of Annex I of the Directive describes the content of the declaration of conformity, which must include the following:

- description of the apparatus to which it refers,

- reference to the specifications[1] under which conformity is declared and, where appropriate, to the internal measures implemented to ensure the conformity of the apparatus with the provisions of the Directive,

- identification of the signatory empowered to bind the manufacturer or his authorized representative,

- where appropriate, reference to the EC type-examination certificate issued by a notified body.

The declaration of conformity must be written in one of the official languages of the Community.

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(1) Pursuant to Article 7.

## 7. INSTRUCTIONS FOR USE

Annex III of the Directive stipulates that all "apparatus" must be accompanied by instructions containing all the information required in order to use the apparatus in accordance with the intended purpose.

These instructions must give the following information:

i) intended conditions of use;

ii) instructions on:

- installation;
- assembly;
- adjustment;
- - taking into service;
- use;
- maintenance;

iii) where necessary, warnings about what not to do.

## 8. COMPETENT AUTHORITIES, COMPETENT BODIES AND NOTIFIED BODIES

The EMC Directive refers to three category bodies performin different functions. They are:

- competent authorities
- competent bodies
- notified bodies.

### 8.1. Competent authorities

The competent authorities are represented by the administrations of the Member States responsible for fulfilling the obligations of market control (article 3) incumbent on them. Each Member State must notify the competent authorities to the Commission and to the other Member States.

As a guide, a list of the names and addresses of the competent Authorities known to the Commission is reproduced in Annex 4.

### 8.2. Competent bodies

Under the EMC Directive, a body is considered to be competent if it fulfils the criteria set out in Annex II to that Directive. Bodies which are able to provide proof of their conformity with the appropriate harmonized standards of the EN 45000 series by presenting a certificate of accreditation or other means of documentary proof are presumed to be competent and in this respect to conform to the requirements of the Directive. A manufacturer's laboratory can be recognized as a competent body provided that it satisfies the criteria set out above and, in particular, provided that it can give assurances regarding its independence and impartiality. In particular, a competent body must ensure that it is ready to accept any request, wherever this request comes from, taking into account its possibilities and work load.

The competent body is responsible for issuing the technical reports or certificates referred to in Article 10(2) of the Directive. It is not necessary for a competent body to be notified to the Commission and the other Member States.

A body can be recognized as competent :

- either by an accreditation body recognized as such by the competent authority of a Member State;

- or by a body representing the supervisory authority of a Member State.

Bodies accepted as competent are advised to make themselves known to the Commission, which will publish their names and addresses.

As a guide, a provisional list of the competent bodies as well as their area of competence known to the Commission is reproduced in Annex 5.

### 8.3. Notified bodies[1]

Under the EMC Directive, a body may be considered notified if it meets the criteria set out in Annex II to the Directive. Bodies which are able to provide proof of their conformity with the appropriate harmonized standards of the EN 45000 series by presenting a certificate of accreditation or other means of documentary proof are presumed to be notifiable and to conform to the requirements of the Directive. This does not rule out the possibility that bodies not conforming to the harmonized standards may be notified, on the grounds that compliance is obligatory only with respect to the criteria set out in Annex II to the Directive.

A notified body is responsible for issuing the EC type-approval certificates referred to in Article 10(5) of the Directive.

Each Member State must notify the bodies responsible for issuing the EC type-examination certificates referred to in Article 10(5) of the Directive to the Commission and the other Member States.

However, the Member States, on their own responsibility, notify the bodies under their jurisdiction which they have chosen from among those considered to be technically competent. For the Member States, this responsibility involves the obligation to ensure that the notified bodies permanently maintain the technical competence required by the EMC Directive and that they keep their competent authorities informed about the performance of their tasks.

Therefore, a Member State which does not have a competent body under its jurisdiction to notify and which is not able to notify a competent body subject to the jurisdiction of another Member State is not required to make such a notification. This means that a Member State which does not have a competent body is not required to create one if it does not feel the need to do so. A manufacturer always has the choice of contacting any body which has been notified by a Member State within the Community.

As a guide, Annex 6 includes a list of bodies notified to date and published in the Official Journal of the European Communities.

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(1) See the "Guide to implementation of the Community's TechnicalRegulations based on the Rules of the New Approach and of the Global Approach, sheet", II/B.

## 9. PRODUCT MARKING

All apparatus covered by the Directive in accordance with the protection requirements and accompanied by one of the means of certification provided for in Article 10 must bear the CE conformity marking.

The CE conformity marking is affixed by the manufacturer or his authorized representative established within the Community to the apparatus or else to the packaging, instructions for use or guarantee certificate: *In order of priority, to the apparatus or, if this is not possible, to the packaging, instructions for use or guarantee certificate.*

Where the apparatus is covered by other Directives providing for the CE conformity marking, application of the CE marking also indicates that the apparatus conforms to the provisions of the other directives applicable to it.

The CE conformity marking is to be affixed visibly, legibly and indelibly.

It is prohibited to affix any marks or inscriptions that are likely to mislead third parties as to the verbal or pictorial significance of the CE conformity marking.

## 10. SAFEGUARD CLAUSE[1]

The safeguard clause referred to in Article 9 is the Community procedure whereby any measure taken by a Member State, on the grounds of non-compliance with the protection requirements and for the purpose of withdrawing from the market, prohibiting the placing on the market or restricting the free movement of apparatus accompanied by one of the means of attestation provided for in the Directive and therefore bearing the CE marking must be immediately notified to the Commission.

Any notified measure is followed by a consultation procedure between the Commission and the "parties concerned" The "parties concerned" primarily means the Member State which was taken the restrictive measure, the manufacturer or his authorized representative established within the Community or, failing them, the person who placed the apparatus on the Community market.

The consultation procedure enables the Commission, on the basis of the above reasons, to assess whether the restrictive measure is justified. This means that the measures notified to the Commission must be accompanied by detailed information specifying in particular the reasons why the protection requirements laid down in the Directive have not been complied with by the apparatus concerned.

Where the Commission finds, following such consultation, that the measures are justified, it immediately informs the Member State which took the initiative and the other Member States. In the Commission's view, the objective of informing the other Member States is to prompt these Member States to take appropriate measures in accordance with Article 3 of the Directive.

Where the Commission finds that the measures are not justified, it reserves the right to proceed under Article 169 of the Treaty. Before doing this, it will immediately inform the Member State which took the initiative and the manufacturer or, failing this, any other person who placed the apparatus on the Community market.

In order to ensure transparency and the proper uniform application of the safeguard clause, Article 9(4) states that "the Commission shall ensure that the Member States are kept informed of the progress and outcome of this procedure."

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(1) For a detailed analysis of the "Safeguard clause", see the "Guide to the implementation of the Community harmonization based on the New Approach and the Global Approach, sheet", I/E, Chapters 2, 3, 4.

## 11. PROGRESS ON STANDARDIZATION

### 11.1. Standards published in the Official Journal of the European Communication

By way of information, Annex 7 contains a reference list of harmonized European standards that have been published in the EC's Official Journal. The appplication of the appropriate harmonized standards to a product confers on that product presumption of conformity with the protection requirements of the Directive. In other words, in case of contestation, the authorised authorities will have to prove that the product is not in conformity with the protection requirements of the directive.

The standards are available from the national bodies on standardization, and from CENELEC, rue de Stassart, 35, 1050 Bruxelles.

### 11.2. Standardization programme

By way of information, Annex 8 contains the standardization programme as submitted to the Directive 83/189/EEC Committee on 7 October 1992. This standardization programme comes under the CENELEC terms of reference.

Within the terms of reference of the mandate, CENELEC will prepare standards covering the electromagnetic emission and immunity aspects. These standards will define the limits and the test methods that are necessary and adequate to make it possible to give presumption of conformity with the directive for the products that are manufactured in conformity with the appropriate harmonised standard.

# ANNEX 1

## Text of the Directive EMC 89/336/EEC and of Directive 92/31/EEC

II

*(Acts whose publication is not obligatory)*

# COUNCIL

## COUNCIL DIRECTIVE

of 3 May 1989

**on the approximation of the laws of the Member States relating to electromagnetic compatibility**

(89/336/EEC)

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community, and in particular Article 100a thereof,

Having regard to the proposal from the Commission (1),

In cooperation with the European Parliament (2),

Having regard to the opinion of the Economic and Social Committee (3),

Whereas it is necessary to adopt measures with the aim of progressively establishing the internal market over a period expiring on 31 December 1992; whereas the internal market comprises an area without internal frontiers in which the free movement of goods, persons, services and capital is ensured;

Whereas Member States are responsible for providing adequate protection for radiocommunications and the devices, apparatus or systems whose performance may be degraded by electromagnetic disturbance produced by electrial and electronic apparatus against the degradation caused by such disturbances;

Whereas Member States are also responsible for ensuring that electric energy distribution networks are protected from electromagnetic disturbance with can affect them and, consequently, equipment fed by them;

Whereas Council Directive 86/361/EEC of 24 July 1986 on the initial stage of the recognition of type-approval for telecommunications terminal equipment (4) covers in particular the signals emitted by such equipment when it is operating normally and the protection of public telecommunications networks from harm; whereas it is therefore still necessary to provide adequate protection for these networks, including the equipment connected to them, against temporary disturbances caused by signals of an accidental nature that may be emitted by this equipment;

Whereas in some Member States, mandatory provisions define in particular the permissible electromagnetic disturbance levels that this equipment is liable to cause and its degree of immunity to such signals; whereas these mandatory provisions do not necessarily lead to different protection levels from one Member State to another but do, by their disparity, hinder trade within the Community;

Whereas the national provisions ensuring such protection must be harmonized in order to guarantee the free movement of electrical and electronic apparatus without lowering existing and justified levels of protection in the Member States;

Whereas Community legislation as it stands at present provides that, notwithstanding one of the fundamental rules of the Community, namely the free movement of goods, barriers to intra-Community trade resulting from disparities in national laws on the marketing of products have to be accepted in so far as those provisions may be recognized as necessary to satisfy essential requirements; whereas the harmonization of laws in the case in point must therefore be confined to those provisions needed to comply with the protection requirements relating to electromagnetic compatibility; whereas these requirements must replace the corresponding national provisions;

Whereas this Directive therefore defines only protection requirements relating to electromagnetic compatibility; whereas, to facilitate proof of conformity with these requirements, it is important to have harmonized standards at European level concerning electromagnetic compatibility, so that products complying with them may

(1) OJ No C 322, 2. 12. 1987, p. 4.
(2) OJ No C 262, 10. 10. 1988, p. 82 and OJ No C 69, 20. 3. 1989, p. 72.
(3) OJ No C 134, 24. 5. 1988, p. 2.
(4) OJ No L 217, 5. 8. 1986, p. 21.

be assumed to comply with the protection requirements; whereas these standards harmonized at European level are drawn up by private bodies and must remain non-binding texts; whereas for that purpose the European Committee for Electrotechnical Standardization (CENELEC) is recognized as the competent body in the field of this Directive for the adoption of harmonized standards in accordance with the general guidelines for cooperation between the Commission and the European Committee for Standardization (CEN) and CENELEC signed on 13 November 1984; whereas, for the purposes of this Directive, a harmonized standard is a technical specification (European standard or harmonization document) adopted by CENELEC upon a remit from the Commission in accordance with the provisions of Council Directive 83/189/EEC of 28 March 1983 laying down a procedure for the provision of information in the field of technical standards and regulations (1), as last amended by Directive 88/182/EEC (2), and pursuant to the abovementioned general guidelines;

Whereas, pending the adoption of harmonized standards for the purposes of this Directive, the free movement of goods should be facilitated by accepting, as a transitional measure, on a Community level, apparatus complying with the national standards adopted, in accordance with the Community inspection procedure ensuring that such national standards meet the protection objectives of this Directive;

Whereas the EC declaration of conformity concerning the apparatus constitutes a presumption of its conformity with this Directive; whereas this declaration must take the simplest possible form;

Whereas, for apparatus covered by Directive 86/361/EEC, in order to obtain efficient protection as regards electromagnetic compatibility, compliance with the provisions of this Directive should nevertheless be certified by marks or certificates of conformity issued by bodies notified by the Member States; whereas, to facilitate the mutual recognition of marks and certificates issued by these bodies, the criteria to be taken into consideration for appointing them should be harmonized;

Whereas it is nevertheless possible that equipment might disturb radiocommunications and telecommunications networks; whereas provision should therefore be made for a procedure to reduce this hazard;

Whereas this Directive applies to the appliances and equipment covered by Directives 76/889/EEC (3) and 76/890/EEC (4) which relate to the approximation of the laws of the Member States relating to radio interference caused by electrical household appliances, portable tools and similar equipment and to the suppression of radio interference with regard to fluorescent lighting luminaires fitted with starters; whereas those Directive should therefore be repealed,

HAS ADOPTED THIS DIRECTIVE:

*Article 1*

For the purposes of this Directive:

1. 'apparatus' means all electrical and electronic appliances together with equipment and installations containing electrical and/or electronic components.

2. 'electromagnetic disturbance' means any electromagnetic phenomenon which may degrade the performance of a device, unit of equipment or system. An electromagnetic disturbance may be electromagnetic noise, an unwanted signal or a change in the propagation medium itself.

3. 'immunity' means the ability of a device, unit of equipment or system to perform without degradation of quality in the presence of an electromagnetic disturbance.

4. 'electromagnetic compatibility' means the ability of a device, unit of equipment or system to function satisfactorily in its electromagnetic environment without introducing intolerable electromagnetic disturbances to anything in that environment.

5. 'competent body' means any body which meets the criteria listed in Annex II and is recognized as such.

6. 'EC type-examination certificate' is a document in which a notified body referred to in Article 10 (6) certifies that the type of equipment examined complies with the provisions of this Directive which concern it.

*Article 2*

1. This Directive applies to apparatus liable to cause electromagnetic disturbance or the performance of which is liable to be affected by such disturbance.

It defines the protection requirements and inspection procedures relating thereto.

(1) OJ No L 109, 26. 4. 1983, p. 8.
(2) OJ No L 81, 26. 3. 1988, p. 75.
(3) OJ No L 336, 4. 12. 1976, p. 1.
(4) OJ No L 336, 4. 12. 1976, p. 22.

2. In so far as protection requirements specified in this Directive are harmonized, in the case of certain apparatus, by specific Directives, this Directive shall not apply or shall cease to apply with regard to such apparatus or protection requirements upon the entry into force of those specific Directives.

3. Radio equipment used by radio amateurs within the meaning of Article 1, definition 53, of the radio regulations in the International Telecommunications Convention, shall be excluded from the scope of this Directive, unless the apparatus is available commercially.

*Article 3*

Member States shall take all appropriate measures to ensure that apparatus as referred to in Article 2 may be placed on the market or taken into service only if it complies with the requirements laid down by this Directive when it is properly installed and maintained and when it is used for the purposes for which it is intended.

*Article 4*

The apparatus referred to in Article 2 shall be so constructed that:

(a) the electromagnetic disturbance it generates does not exceed a level allowing radio and telecommunications equipment and other apparatus to operate as intended,

(b) the apparatus has an adequate level of intrinsic immunity of electromagnetic disturbance to enable it to operate as intended.

The principal protection requirements are set out in Annex III.

*Article 5*

Member States shall not impede for reasons relating to electromagnetic compatibility the placing on the market and the taking into service on their territory of apparatus covered by this Directive which satisfies the requirements thereof.

*Article 6*

1. The requirements of this Directive shall not prevent the application in any Member State of the following special measures:

(a) measures with regard to the taking into service and use of the apparatus taken for a specific site in order to overcome an existing or predicted electromagnetic compatibility problem;

(b) measures with regard to the installation of the apparatus taken in order to protect the public telecommunications networks or receiving or transmitting stations used for safety purposes.

2. Without prejudice to Directive 83/189/EEC, Member States shall inform the Commission and the other Member States of the special measures taken pursuant to paragraph 1.

3. Special measures that have been recognized as justified shall be contained in an appropriate notice made by the Commission in the *Official Journal of the European Communities*.

*Article 7*

1. Member States shall presume compliance with the protection requirements referred to in Article 4 in the case of apparatus which is in conformity;

(a) with the relevant national standards transposing the harmonized standards, the reference numbers of which have been published in the *Official Journal of the European Communities*. Member States shall publish the reference numbers of such national standards;

(b) or with the relevant national standards referred to in paragraph 2 in so far as, in the areas covered by such standards, no harmonized standards exist.

2. Member States shall communicate to the Commission the texts of their national standards, as referred to in paragraph 1 (b), which they regard as complying with the protection requirements referred to in Article 4. The Commission shall forward such texts forthwith to the other Member States. In accordance with the procedure provided for in Article 8 (2), it shall notify the Member States of those national standards in respect of which there is a presumption of conformity with the protection requirements referred to in Article 4.

Member States shall publish the reference numbers of those standards. The Commission shall also publish them in the *Official Journal of the European Communities*.

3. Member States shall accept that where the manufacturer has not applied, or has applied only in part, the standards referred to in paragraph 1, or where no such standards exist, apparatus shall be regarded as satisfying the protection requirements has been certified by the means of attestation provided for in Article 10 (2).

*Article 8*

1. Where a Member State or the Commission considers that the harmonized standards referred to in Article 7 (1) (a) do not entirely satisfy the requirements referred to in Article 4, the Member State concerned or the Commission shall bring the matter before the Standing Committee set up by Directive 83/189/EEC, hereinafter referred to as 'the Committee', giving the reasons therefor. The Committee shall deliver an opinion without delay.

Upon receipt of the Committee's opinion, the Commission shall inform the Member States as soon as possible whether or not it is necessary to withdraw in whole or in part those standards from the publications referred to in Article 7 (1) (a).

2. After receipt of the communication referred to in Article 7 (2), the Commission shall consult the Committee. Upon receipt of the latter's opinion, the Commission shall inform the Member States as soon as possible whether or not the national standard in question shall enjoy the presumption of conformity and, if so, that the references thereof shall be published nationally.

If the Commission or a Member State considers that a national standard no longer satisfies the necessary conditions for presumption of compliance with the protection requirements referred to in Article 4, the Commission shall consult the Committee, which shall give its opinion without delay. Upon receipt of the latter's opinion, the Commission shall inform the Member States as soon as possible whether or not the standard in question shall continue to enjoy a presumption of conformity and, if not, that it must be withdrawn in whole or in part from the publications referred to in Article 7 (2).

*Article 9*

1. Where a Member State ascertains that apparatus accompanied by one of the means of attestation provided for in Article 10 does not comply with the protection requirements referred to in Article 4, it shall take all appropriate measures to withdraw the apparatus from the market, prohibit its placing on the market or restrict its free movement.

The Member State concerned shall immediately inform the Commission of any such measure, indicating the reasons for its decision and, in particular, whether non-compliance is due to:

(a) failure to satisfy the protection requirements referred to in Article 4, where the apparatus does not meet the standards referred to in Article 7 (1);

(b) incorrect application of the standards referred to in Article 7 (1);

(c) shortcomings in the standards referred to in Article 7 (1) themselves.

2. The Commission shall consult the parties concerned as soon as possible. If the Commission finds, after such consultations, that the action is justified, it shall forthwith so inform the Member State that took the action and the other Member States.

Where the decision referred to in paragraph 1 is attributed to shortcomings in the standards, the Commission, after consulting the parties, shall bring the matter before the Committee within two months if the Member State which has taken the measures intends to uphold them, and shall initiate the procedures referred to in Article 8.

3. Where apparatus which does not comply is accompanied by one of the means of attestation referred to in Article 10, the competent Member State shall take appropriate action against the author of the attestation and shall inform the Commission and the other Member States thereof.

4. The Commission shall ensure that the Member States are kept informed of the progress and outcome of this procedure.

*Article 10*

1. In the case of apparatus for which the manufacturer has applied the standards referred to in Article 7 (1), the conformity of apparatus with this Directive shall be certified by an EC declaration of conformity issued by the manufacturer or his authorized representative established within the Community. The declaration shall be held at the disposal of the competent authority for ten years following the placing of the apparatus on the market.

The manufacturer or his authorized representative established within the Community shall also affix the EC conformity mark to the apparatus or else to the packaging, instructions for use or guarantee certificate.

Where neither the manufacturer nor his authorized representative is established within the Community, the above obligation to keep the EC declaration of conformity available shall be the responsibility of the person who places the apparatus on the Community market.

The provisions governing the EC declaration and the EC mark are set out in Annex I.

2. In the case of apparatus for which the manufacturer has not applied, or has applied only in part, the standards referred to in Article 7 (1) or failing such standards, the manufacturer or his authorized representative established within the Community shall hold at the disposal of the relevant competent authorities, as soon as the apparatus is placed on the market, a technical construction file. This file shall describe the apparatus, set out the procedures used to ensure conformity of the apparatus with the protection requirements referred to in Article 4 and include a technical report or certificate, one or other obtained from a competent body.

The file shall be held at the disposal of the competent authorities for ten years following the placing of the apparatus on the market.

Where neither the manufacturer nor his authorized representative is established within the Community, this obligation to keep a technical file available shall be the responsibility of the person who places the apparatus on the Community market.

The conformity of apparatus with that described in the technical file shall be certified in accordance with the procedure laid down in paragraph 1.

Member States shall presume, subject to the provisions of this paragraph, that such apparatus meets the protection requirements referred to in Article 4.

3. Where the standards referred to in Article 7 (1) are not yet in existence, and without prejudice to the provisions of paragraph 2 of this Article, the apparatus concerned may, on a transitional basis until 31 December 1992 at the latest, continue to be governed by the national arrangements in force on the date of adoption of this Directive, subject to the compatibility of such arrangements with the provisions of the Treaty.

4. Conformity of apparatus covered by Article 2 (2) of Directive 86/361/EEC with the provisions of this Directive shall be certified in accordance with the procedure laid down in paragraph 1 once the manufacturer or his authorized representative established within the Community has obtained an EC type-examination certificate concerning this apparatus issued by one of the notified bodies referred to in paragraph 6 of this Article.

5. The conformity of apparatus designed for the transmission of radiocommunications, as defined in the International Telecommunication Union Convention, with the provisions of this Directive shall be certified in accordance with the procedure laid down in paragraph 1 once the manufacturer or his authorized representative established within the Community has obtained an EC type-examination certificate concerning this apparatus issued by one of the notified bodies referred to in paragraph 6 below.

This provision shall not apply to the above apparatus where it is designed and intended exclusively for radio amateurs within the meaning of Article 2 (3).

6. Each Member State shall notify the Commission and the other Member States of the competent authorities referred to in this Article and of the bodies responsible for issuing the EC type-examination certificates referred to in paragraphs 4 and 5. The Commission shall publish a list of those authorities and bodies, for information purposes, in the *Official Journal of the European Communities* and shall ensure that the list is updated.

Such notification shall state whether those bodies are competent for all apparatus covered by this Directive or whether their responsibility is limited to certain specific areas.

Member States shall apply the criteria listed in Annex II for the assessment of the bodies to be notified.

Bodies which comply with the assessment criteria fixed by the relevant harmonized standards shall be presumed to comply with the aforementioned criteria.

A Member State which has notified a body must withdraw approval if it finds that the body no longer meets the criteria listed in Annex II. It shall forthwith inform the Commission and the other Member States thereof.

*Article 11*

Directive 76/889/EEC and Directive 76/890/EEC shall be repealed as from 1 January 1992.

*Article 12*

1. By 1 July 1991, Member States shall adopt and publish the laws, regulations and administrative provisions necessary to comply with this Directive. They shall inform the Commission thereof.

They shall apply these provisions as from 1 January 1992.

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 13*

This Directive is addressed to the Member States.

Done at Brussels, 3 May 1989.

*For the Council*

*The President*

P. SOLBES

*ANNEX I*

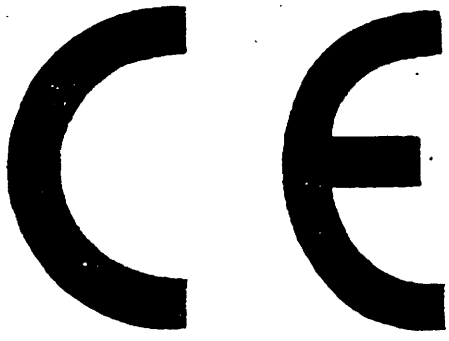
**1. EC declaration of conformity**

**The EC declaration of conformity must contain the following:**

- **description of the apparatus to which it refers,**
- **reference to the specifications under which conformity is declared, and, where appropriate, to the national measures implemented to ensure the conformity of the apparatus with the provisions of the Directive,**
- **identification of the signatory empowered to bind the manufacturer or his authorized representative,**
- **where appropriate, reference to the EC type-examination certificate issued by a notified body.**

**2. EC conformity mark**

- The EC conformity mark shall consist of the letters CE as set out below and the figures of the year in which the mark was affixed.



- This mark should, where appropriate, be accompanied by the distinctive letters used by the notified body issuing the EC type-examination certificate.
- Where apparatus is the subject of other Directives providing for the EC conformity mark, the affixing of the EC mark shall also indicate conformity with the relevant requirements of those other Directives.

*ANNEX II*

**Criteria for the assessment of the bodies to be notified**

The bodies designated by the Member States must fulfil the following minimum conditions:

1. availability of personnel and of the necessary means and equipment;
2. technical competence and professional integrity of personnel;
3. independence, in carrying out the tests, preparing the reports, issuing the certificates and performing the verification function provided for in this Directive, of staff and technical personnel in relation to all circles, groups or persons directly or indirectly concerned with the product in question;
4. maintenance of professional secrecy by personnel;
5. possession of civil liability insurance unless such liability is covered by the State under national law.

Fulfilment of the conditions under points 1 and 2 shall be verified at intervals by the competent authorities of the Member States.

## *ANNEX III*

### Illustrative list of the principal protection requirements

The maximum electromagnetic disturbance generated by the apparatus shall be such as not to hinder the use of in particular the following apparatus:

(a) domestic radio and television receivers

(b) industrial manufacturing equipment

(c) mobile radio equipment

(d) mobile radio and commercial radiotelephone equipment

(e) medical and scientific apparatus

(f) information technology equipment

(g) domestic appliances and household electronic equipment

(h) aeronautical and marine radio apparatus

(i) educational electronic equipment

(j) telecommunications networks and apparatus

(k) radio and television broadcast transmitters

(l) lights and fluorescent lamps.

Apparatus, and especially the apparatus referred to in (a) to (l), should be constructed in such a way that it has an adequate level of electromagnetic immunity in the usual electromagnetic compatibility environment where the apparatus is intended to work so as to allow its unhindered operation taking into account the levels of disturbance generated by apparatus complying with the standards laid down in Article 7.

The information required to enable use in accordance with the intended purpose of the apparatus must be contained in the instructions accompanying the apparatus.

II

*(Acts whose publication is not obligatory)*

# COUNCIL

## COUNCIL DIRECTIVE 92/31/EEC

**of 28 April 1992**

**amending Directive 89/336/EEC on the approximation of the laws of the Member States relating to electromagnetic compatibility**

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community, and in particular Article 100a thereof,

Having regard to the proposal from the Commission (1),

In cooperation with the European Parliament (2),

Having regard to the opinion of the Economic and Social Committee (3),

Whereas Directive 89/336/EEC (4) provides for complete harmonization relating to electromagnetic compatibility;

Whereas a uniform application of that Directive requires the availability of harmonized standards; whereas these standards will not be available by the date of application of that Directive;

Whereas that Directive has not provided for an adequate transitional period during which it would be permitted to place on the market apparatus manufactured in accordance with national regulations applicable before the date of application of the said Directive;

Whereas manufacturers must have the time needed to allow apparatus in stock to be marketed;

Whereas Directive 89/336/EEC should accordingly be amended,

HAS ADOPTED THIS DIRECTIVE:

*Article 1*

Directive 89/336/EEC is hereby amended as follows:

1. Article 10 (3) shall be deleted.

2. Article 12 (1) shall be supplemented by the following paragraph:

'However, Member States shall, for the period up to 31 December 1995, authorize the placing on the market and/or the putting into service of apparatus referred to in this Directive conforming to the national regulations in force in their territory on 30 June 1992.'

*Article 2*

1. Member States shall adopt and publish the laws, regulations and administrative provisions necessary to comply with this Directive not later than three months after its adoption. They shall forthwith inform the Commission thereof.

When Member States adopt these measures, they shall contain a reference to this Directive or shall be accompanied by such reference on the occasion of their official publication. The methods of making such a reference shall be laid down by the Member States.

Member States shall apply these provisions not later than six months after the adoption of this Directive.

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

*Article 3*

This Directive is addressed to the Member States.

Done at Luxembourg, 28 April 1992.

*For the Council*

*The President*

Arlindo MARQUES CUNHA

(1) OJ No C 126, 21. 6. 1991, p. 7.
(2) OJ No C 13, 20. 1. 1992, p. 506 and OJ No C 94, 13. 4. 1992.
(3) OJ No C 339, 31. 12. 1991, p. 1.
(4) OJ No L 139, 23. 5. 1989, p. 19. Directive amended by Directive 91/263/EEC (OJ No L 128, 23. 5. 1991, p. 1).

# ANNEX 2

## Text of the Directive EMC 89/336/EEC amended by the Directive "CE Marking" 93/68/EEC *

* Informal consolidation

II

*(Acts whose publication is not obligatory)*

# COUNCIL

## COUNCIL DIRECTIVE

**of 3 May 1989**

**on the approximation of the laws of the Member States relating to electromagnetic compatibility**

(89/336/EEC)

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community, and in particular Article 100a thereof,

Having regard to the proposal from the Commission (1),

In cooperation with the European Parliament (2),

Having regard to the opinion of the Economic and Social Committee (3),

Whereas it is necessary to adopt measures with the aim of progressively establishing the internal market over a period expiring on 31 December 1992; whereas the internal market comprises an area without internal frontiers in which the free movement of goods, persons, services and capital is ensured;

Whereas Member States are responsible for providing adequate protection for radiocommunications and the devices, apparatus or systems whose performance may be degraded by electromagnetic disturbance produced by electrial and electronic apparatus against the degradation caused by such disturbances;

Whereas Member States are also responsible for ensuring that electric energy distribution networks are protected from electromagnetic disturbance with can affect them and, consequently, equipment fed by them;

Whereas Council Directive 86/361/EEC of 24 July 1986 on the initial stage of the recognition of type-approval for telecommunications terminal equipment (4) covers in particular the signals emitted by such equipment when it is operating normally and the protection of public telecommunications networks from harm; whereas it is therefore still necessary to provide adequate protection for these networks, including the equipment connected to them, against temporary disturbances caused by signals of an accidental nature that may be emitted by this equipment;

Whereas in some Member States, mandatory provisions define in particular the permissible electromagnetic disturbance levels that this equipment is liable to cause and its degree of immunity to such signals; whereas these mandatory provisions do not necessarily lead to different protection levels from one Member State to another but do, by their disparity, hinder trade within the Community;

Whereas the national provisions ensuring such protection must be harmonized in order to guarantee the free movement of electrical and electronic apparatus without lowering existing and justified levels of protection in the Member States;

Whereas Community legislation as it stands at present provides that, notwithstanding one of the fundamental rules of the Community, namely the free movement of goods, barriers to intra-Community trade resulting from disparities in national laws on the marketing of products have to be accepted in so far as those provisions may be recognized as necessary to satisfy essential requirements; whereas the harmonization of laws in the case in point must therefore be confined to those provisions needed to comply with the protection requirements relating to electromagnetic compatibility; whereas these requirements must replace the corresponding national provisions;

Whereas this Directive therefore defines only protection requirements relating to electromagnetic compatibility; whereas, to facilitate proof of conformity with these requirements, it is important to have harmonized standards at European level concerning electromagnetic compatibility, so that products complying with them may

(1) OJ No C 322, 2. 12. 1987, p. 4.
(2) OJ No C 262, 10. 10. 1988, p. 82 and OJ No C 69, 20. 3. 1989, p. 72.
(3) OJ No C 134, 24. 5. 1988, p. 2.
(4) OJ No L 217, 5. 8. 1986, p. 21.

be assumed to comply with the protection requirements; whereas these standards harmonized at European level are drawn up by private bodies and must remain non-binding texts; whereas for that purpose the European Committee for Electrotechnical Standardization (CENELEC) is recognized as the competent body in the field of this Directive for the adoption of harmonized standards in accordance with the general guidelines for cooperation between the Commission and the European Committee for Standardization (CEN) and CENELEC signed on 13 November 1984; whereas, for the purposes of this Directive, a harmonized standard is a technical specification (European standard or harmonization document) adopted by CENELEC upon a remit from the Commission in accordance with the provisions of Council Directive 83/189/EEC of 28 March 1983 laying down a procedure for the provision of information in the field of technical standards and regulations (1), as last amended by Directive 88/182/EEC (2), and pursuant to the abovementioned general guidelines;

Whereas, pending the adoption of harmonized standards for the purposes of this Directive, the free movement of goods should be facilitated by accepting, as a transitional measure, on a Community level, apparatus complying with the national standards adopted, in accordance with the Community inspection procedure ensuring that such national standards meet the protection objectives of this Directive;

Whereas the EC declaration of conformity concerning the apparatus constitutes a presumption of its conformity with this Directive; whereas this declaration must take the simplest possible form;

Whereas, for apparatus covered by Directive 86/361/EEC, in order to obtain efficient protection as regards electromagnetic compatibility, compliance with the provisions of this Directive should nevertheless be certified by marks or certificates of conformity issued by bodies notified by the Member States; whereas, to facilitate the mutual recognition of marks and certificates issued by these bodies, the criteria to be taken into consideration for appointing them should be harmonized;

Whereas it is nevertheless possible that equipment might disturb radiocommunications and telecommunications networks; whereas provision should therefore be made for a procedure to reduce this hazard;

Whereas this Directive applies to the appliances and equipment covered by Directives 76/889/EEC (3) and 76/890/EEC (4) which relate to the approximation of the laws of the Member States relating to radio interference caused by electrical household appliances, portable tools and similar equipment and to the suppression of radio interference with regard to fluorescent lighting luminaires fitted with starters; whereas those Directive should therefore be repealed,

HAS ADOPTED THIS DIRECTIVE:

*Article 1*

For the purposes of this Directive:

1. 'apparatus' means all electrical and electronic appliances together with equipment and installations containing electrical and/or electronic components.

2. 'electromagnetic disturbance' means any electromagnetic phenomenon which may degrade the performance of a device, unit of equipment or system. An electromagnetic disturbance may be electromagnetic noise, an unwanted signal or a change in the propagation medium itself.

3. 'immunity' means the ability of a device, unit of equipment or system to perform without degradation of quality in the presence of an electromagnetic disturbance.

4. 'electromagnetic compatibility' means the ability of a device, unit of equipment or system to function satisfactorily in its electromagnetic environment without introducing intolerable electromagnetic disturbances to anything in that environment.

5. 'competent body' means any body which meets the criteria listed in Annex II and is recognized as such.

6. 'EC type-examination certificate' is a document in which a notified body referred to in Article 10 (6) certifies that the type of equipment examined complies with the provisions of this Directive which concern it.

*Article 2*

1. This Directive applies to apparatus liable to cause electromagnetic disturbance or the performance of which is liable to be affected by such disturbance.

It defines the protection requirements and inspection procedures relating thereto.

(1) OJ No L 109, 26. 4. 1983, p. 8.
(2) OJ No L 81, 26. 3. 1988, p. 75.
(3) OJ No L 336, 4. 12. 1976, p. 1.
(4) OJ No L 336, 4. 12. 1976, p. 22.

2. In so far as protection requirements specified in this Directive are harmonized, in the case of certain apparatus, by specific Directives, this Directive shall not apply or shall cease to apply with regard to such apparatus or protection requirements upon the entry into force of those specific Directives.

3. Radio equipment used by radio amateurs within the meaning of Article 1, definition 53, of the radio regulations in the International Telecommunications Convention, shall be excluded from the scope of this Directive, unless the apparatus is available commercially.

*'Article 3*

'Member States shall take all appropriate measures to ensure that the apparatus referred to in Article 2 may be placed on the market or taken into service only if it bears the CE marking provided for in Article 10 indicating its conformity to all the provisions of this Directive, including the conformity assessment procedures laid down in Article 10, when it is properly installed and maintained and when it is used for the purposes for which it is intended.';

*Article 4*

The apparatus referred to in Article 2 shall be so constructed that:

(a) the electromagnetic disturbance it generates does not exceed a level allowing radio and telecommunications equipment and other apparatus to operate as intended;

(b) the apparatus has an adequate level of intrinsic immunity of electromagnetic disturbance to enable it to operate as intended.

The principal protection requirements are set out in Annex III

*Article 5*

Member States shall not impede for reasons relating to electromagnetic compatibility the placing on the market and the taking into service on their territory of apparatus covered by this Directive which satisfies the requirements thereof.

*Article 6*

1. The requirements of this Directive shall not prevent the application in any Member State of the following special measures:

(a) measures with regard to the taking into service and use of the apparatus taken for a specific site in order to overcome an existing or predicted electromagnetic compatibility problem;

(b) measures with regard to the installation of the apparatus taken in order to protect the public telecommunications networks or receiving or transmitting stations used for safety purposes.

2. Without prejudice to Directive 83/189/EEC, Member States shall inform the Commission and the other Member States of the special measures taken pursuant to paragraph 1.

3. Special measures that have been recognized as justified shall be contained in an appropriate notice made by the Commission in the *Official Journal of the European Communities.*

*Article 7*

1. Member States shall presume compliance with the protection requirements referred to in Article 4 in the case of apparatus which is in conformity;

(a) with the relevant national standards transposing the harmonized standards, the reference numbers of which have been published in the *Official Journal of the European Communities.* Member States shall publish the reference numbers of such national standards;

(b) or with the relevant national standards referred to in paragraph 2 in so far as, in the areas covered by such standards, no harmonized standards exist.

2. Member States shall communicate to the Commission the texts of their national standards, as referred to in paragraph 1 (b), which they regard as complying with the protection requirements referred to in Article 4. The Commission shall forward such texts forthwith to the other Member States. In accordance with the procedure provided for in Article 8 (2), it shall notify the Member States of those national standards in respect of which there is a presumption of conformity with the protection requirements referred to in Article 4.

Member States shall publish the reference numbers of those standards. The Commission shall also publish them in the *Official Journal of the European Communities.*

3. Member States shall accept that where the manufacturer has not applied, or has applied only in part, the standards referred to in paragraph 1, or where no such standards exist, apparatus shall be regarded as satisfying the protection requirements has been certified by the means of attestation provided for in Article 10 (2).

*Article 8*

1. Where a Member State or the Commission considers that the harmonized standards referred to in Article 7 (1) (a) do not entirely satisfy the requirements referred to in Article 4, the Member State concerned or the Commission shall bring the matter before the Standing Committee set up by Directive 83/189/EEC, hereinafter referred to as 'the Committee', giving the reasons therefor. The Committee shall deliver an opinion without delay.

Upon receipt of the Committee's opinion, the Commission shall inform the Member States as soon as possible whether or not it is necessary to withdraw in whole or in part those standards from the publications referred to in Article 7 (1) (a).

2. After receipt of the communication referred to in Article 7 (2), the Commission shall consult the Committee. Upon receipt of the latter's opinion, the Commission shall inform the Member States as soon as possible whether or not the national standard in question shall enjoy the presumption of conformity and, if so, that the references thereof shall be published nationally.

If the Commission or a Member State considers that a national standard no longer satisfies the necessary conditions for presumption of compliance with the protection requirements referred to in Article 4, the Commission shall consult the Committee, which shall give its opinion without delay. Upon receipt of the latter's opinion, the Commission shall inform the Member States as soon as possible whether or not the standard in question shall continue to enjoy a presumption of conformity and, if not, that it must be withdrawn in whole or in part from the publications referred to in Article 7 (2).

*Article 9*

1. Where a Member State ascertains that apparatus accompanied by one of the means of attestation provided for in Article 10 does not comply with the protection requirements referred to in Article 4, it shall take all appropriate measures to withdraw the apparatus from the market, prohibit its placing on the market or restrict its free movement.

The Member State concerned shall immediately inform the Commission of any such measure, indicating the reasons for its decision and, in particular, whether non-compliance is due to:

(a) failure to satisfy the protection requirements referred to in Article 4, where the apparatus does not meet the standards referred to in Article 7 (1);

(b) incorrect application of the standards referred to in Article 7 (1);

(c) shortcomings in the standards referred to in Article 7 (1) themselves.

2. The Commission shall consult the parties concerned as soon as possible. If the Commission finds, after such consultations, that the action is justified, it shall forthwith so inform the Member State that took the action and the other Member States.

Where the decision referred to in paragraph 1 is attributed to shortcomings in the standards, the Commission, after consulting the parties, shall bring the matter before the Committee within two months if the Member State which has taken the measures intends to uphold them, and shall initiate the procedures referred to in Article 8.

3. Where apparatus which does not comply is accompanied by one of the means of attestation referred to in Article 10, the competent Member State shall take appropriate action against the author of the attestation and shall inform the Commission and the other Member States thereof.

4. The Commission shall ensure that the Member States are kept informed of the progress and outcome of this procedure.

*Article 10*

1. In the case of apparatus for which the manufacturer has applied the standards referred to in Article 7 (1), the conformity of apparatus with this Directive shall be certified by an EC declaration of conformity issued by the manufacturer or his authorized representative established within the Community. The declaration shall be held at the disposal of the competent authority for ten years following the placing of the apparatus on the market.

The manufacturer or his authorized representative established within the Community shall also affix the EC conformity mark to the apparatus or else to the packaging, instructions for use or guarantee certificate.

Where neither the manufacturer nor his authorized representative is established within the Community, the above obligation to keep the EC declaration of conformity available shall be the responsibility of the person who places the apparatus on the Community market.

The provisions governing the EC declaration and the EC mark are set out in Annex I.

'Member States shall take the necessary measures to prohibit the affixing to apparatus, its packaging, the instructions for use and the guarantee certificate of markings which are likely to deceive third parties as to the meaning and form of the CE marking. Any other marking may be affixed to the apparatus, its packaging, the instructions for use or the guarantee certificate provided that the visibility and legibility of the CE marking is not thereby reduced.';

2. In the case of apparatus for which the manufacturer has not applied, or has applied only in part, the standards referred to in Article 7 (1) or failing such standards, the manufacturer or his authorized representative established within the Community shall hold at the disposal of the relevant competent authorities, as soon as the apparatus is placed on the market, a technical construction file. This file shall describe the apparatus, set out the procedures used to ensure conformity of the apparatus with the protection requirements referred to in Article 4 and include a technical report or certificate, one or other obtained from a competent body.

The file shall be held at the disposal of the competent authorities for ten years following the placing of the apparatus on the market.

Where neither the manufacturer nor his authorized representative is established within the Community, this obligation to keep a technical file available shall be the responsibility of the person who places the apparatus on the Community market.

The conformity of apparatus with that described in the technical file shall be certified in accordance with the procedure laid down in paragraph 1.

Member States shall presume, subject to the provisions of this paragraph, that such apparatus meets the protection requirements referred to in Article 4.

3. Where the standards referred to in Article 7 (1) are not yet in existence, and without prejudice to the provisions of paragraph 2 of this Article, the apparatus concerned may, on a transitional basis until 31 December 1992 at the latest, continue to be governed by the national arrangements in force on the date of adoption of this Directive, subject to the compatibility of such arrangements with the provisions of the Treaty.

4. Conformity of apparatus covered by Article 2 (2) of Directive 86/361/EEC with the provisions of this Directive shall be certified in accordance with the procedure laid down in paragraph 1 once the manufacturer or his authorized representative established within the Community has obtained an EC type-examination certificate concerning this apparatus issued by one of the notified bodies referred to in paragraph 6 of this Article.

5. The conformity of apparatus designed for the transmission of radiocommunications, as defined in the International Telecommunication Union Convention, with the provisions of this Directive shall be certified in accordance with the procedure laid down in paragraph 1 once the manufacturer or his authorized representative established within the Community has obtained an EC type-examination certificate concerning this apparatus issued by one of the notified bodies referred to in paragraph 6 below.

This provision shall not apply to the above apparatus where it is designed and intended exclusively for radio amateurs within the meaning of Article 2 (3).

'6. Member States shall notify the Commission and the other Member States of the competent authorities referred to in this Article and the bodies responsible for issuing the EC type-examination certificates referred to in paragraph 5, together with the specific tasks which these bodies have been appointed to carry out and the identification numbers assigned to them beforehand by the Commission.

The Commission shall publish in the *Official Journal of the European Communities* a list of the notified authorities and bodies with their identification numbers and the tasks for which they have been notified. The Commission shall ensure that this list is kept up to date.';

Such notification shall state whether those bodies are competent for all apparatus covered by this Directive or whether their responsibility is limited to certain specific areas.

Member States shall apply the criteria listed in Annex II for the assessment of the bodies to be notified.

Bodies which comply with the assessment criteria fixed by the relevant harmonized standards shall be presumed to comply with the aforementioned criteria.

A Member State which has notified a body must withdraw approval if it finds that the body no longer meets the criteria listed in Annex II. It shall forthwith inform the Commission and the other Member States thereof.

'7. Without prejudice to Article 9:

(a) where a Member State or a competent authority establishes that the CE marking has been affixed unduly, the manufacturer or his authorized representative established within the Community shall be obliged to make the product comply as regards the provisions concerning the CE marking and to end the infringement under conditions imposed by the Member State;

(b) where non-compliance continues, the Member State must take all appropriate measures to restrict or prohibit the placing on the market of the product in question or to ensure that it is withdrawn from the market in accordance with the procedures laid down in Article 9.';

*Article 11*

Directive 76/889/EEC and Directive 76/890/EEC shall be repealed as from 1 January 1992.

*Article 12*

1. By 1 July 1991, Member States shall adopt and publish the laws, regulations and administrative provisions necessary to comply with this Directive. They shall inform the Commission thereof.

They shall apply these provisions as from 1 January 1992.

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 13*

This Directive is addressed to the Member States.

Done at Brussels, 3 May 1989.

*For the Council*

*The President*

P. SOLBES

*ANNEX I*

**1. EC declaration of conformity**

**The EC declaration of conformity must contain the following:**

**— description of the apparatus to which it refers,**

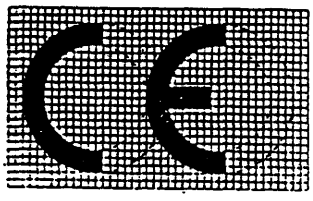
**— reference to the specifications under which conformity is declared, and, where appropriate, to the national measures implemented to ensure the conformity of the apparatus with the provisions of the Directive,**

**— identification of the signatory empowered to bind the manufacturer or his authorized representative,**

**— where appropriate, reference to the EC type-examination certificate issued by a notified body.**

'2. CE conformity marking

— The CE conformity marking shall consist of the initials "CE" taking the following form:



— If the CE marking is reduced or enlarged the proportions given in the above graduated drawing must be respected.

— Where apparatus is the subject of other Directives covering other aspects and which also provide for the CE conformity marking, the latter shall indicate that the appliances are also presumed to conform to those other Directives.

— However, where one or more of these Directives allow the manufacturer, during a transitional period, to choose which arrangements to apply, the CE marking shall indicate conformity only to the Directives applied by the manufacturer. In this case, particulars of the Directives applied, as published in the *Official Journal of the European Communities*, must be given in the documents, notices or instructions required by the Directives and accompanying such apparatus.

— The various components of the CE marking must have substantially the same vertical dimension, which may not be less than 5 mm.'

*ANNEX II*

**Criteria for the assessment of the bodies to be notified**

The bodies designated by the Member States must fulfil the following minimum conditions:

1. availability of personnel and of the necessary means and equipment;
2. technical competence and professional integrity of personnel;
3. independence, in carrying out the tests, preparing the reports, issuing the certificates and performing the verification function provided for in this Directive, of staff and technical personnel in relation to all circles, groups or persons directly or indirectly concerned with the product in question;
4. maintenance of professional secrecy by personnel;
5. possession of civil liability insurance unless such liability is covered by the State under national law.

Fulfilment of the conditions under points 1 and 2 shall be verified at intervals by the competent authorities of the Member States.

*ANNEX III*

**Illustrative list of the principal protection requirements**

The maximum electromagnetic disturbance generated by the apparatus shall be such as not to hinder the use of in particular the following apparatus :

(a) domestic radio and television receivers

(b) industrial manufacturing equipment

(c) mobile radio equipment

(d) mobile radio and commercial radiotelephone equipment

(e) medical and scientific apparatus

(f) information technology equipment

(g) domestic appliances and household electronic equipment

(h) aeronautical and marine radio apparatus

(i) educational electronic equipment

(j) telecommunications networks and apparatus

(k) radio and television broadcast transmitters

(l) lights and fluorescent lamps.

Apparatus, and especially the apparatus referred to in (a) to (l), should be constructed in such a way that it has an adequate level of electromagnetic immunity in the usual electromagnetic compatibility environment where the apparatus is intended to work so as to allow its unhindered operation taking into account the levels of disturbance generated by apparatus complying with the standards laid down in Article 7.

The information required to enable use in accordance with the intended purpose of the apparatus must be contained in the instructions accompanying the apparatus.

# ANNEX 3

## References of national transpositions of the EMC Directive

| MS | Date communication Commission | Measure, Date of adoption, O.J., entry into force |
|---|---|---|
| B | 20.12.94 | Transposition - Moniteur belge du 24.06.1994 - AR 94/1662 - du 18 mai 1994 |
| DA | 27.05.91 | 1) Lov om beskyttelse mod elektromagnetiske forstyrrelser du 10.04.91 - publié au Lovtidende Nr 216 du 10.04.91 - p. 826<br>2) Note de services de la DG des PT du 7.05.91 - J nr IK 91, 1243-1<br>3) Bekendtgørelse om markedsføring m.v. af elektriske apparater og om elektromagnetiske forstyrrelser Nr 796 du 5.12.91 Lovtidende A 1991 Haefte 151 - p. 3660 |
| DE | 21.12.92<br><br><br><br><br><br><br><br><br><br>25.08.94 | 1) Gesetz über die elektromagnetiscke Verträglichkeit von GerPaten (EMVG) - 9.11.92 BGBl. 1992, Teil I, S. 1864/70, Nr 52, vom 12.11.92 - en vigueur: 13.11.92<br>2) Amtsbl. Vfg 241/1992 - Amtsblatt 61/91 vom 11.12.91<br>3) Anpassung der Amtsbl. verfügungen Nr 241/1991 - Amtsblatt des Bundesministers für Post - Nr 6/92 - S. 107/8<br>Amtsbl. Vfg 46/1992 - Amtsblatt des Bundesministers für Post - Nr 6/92 - vom 25.03.92 - S. 107<br>4) Amtsbl. Vfg 89/1992 - Amtsblatt des Bundesministers für Post. - Nr 11/1992 vom 17.06.92 - S. 264<br>5) Amtsbl. Vfg 92/1992 - Amtsblatt des Bundesministers für Post - Nr 11/1992 vom 17.06.92 - S. 266<br>6) Amtsbl. Vfg 115/1992 - Amtsblatt des Bundesministers für Post - Nr 15/1992 vom 12.08.92 - S. 323<br><br>Entwurf eines Ersten Gesetzes zur Änderung des Gesetzes über die elektromagnetische Verträglichkeit von Geräten - Deutscher Bundestag 12. Wahlperiode - Drucksache 12/8006 |
| F | 30.07.92 | Décret 92-587 du 26.06.92 publ. JORF du 2.07.92<br>Décret 94-737 du 22.08.94 publ. JORF du 28.08.94. Projet de décret pour l'application de la directive 93/68 au 13.01.95. |
| IRL | 31.08.93<br>SG (93) A 17701<br>17.09.93<br>15.12.93 | en cours<br><br>Transposition en phase finale - pour fin 1993<br>Transposition en phase finale - pour début 1994 |
| I | 12.92<br><br>19.07.94 | Decreto legislativo n° 476 du 4.12.92 - Supplemento ordinario G.V. - Serie générale n° 289 du 9.12.92 - p. 18 et suivantes<br>- Attuazione della direttiva 89/336/CEE del Consiglio del 3 maggio 1989, in materia di ravvicinamento delle legislazioni degli Stati membri relative alla compatibilità elettromagnetica, modificata ed integrata dalla direttiva 92/31/CEE, 93/68/CEE e 93/97/CEE |
| L | 04.93<br>26.05.93<br>20.07.95<br>(Via M. Kyriakidis) | Règlement G-D du 21.04.93 concernant la compatibilité électromagnétique - Mémorial A n° 35 du 7.05.93 - p. 624/7<br>Texte coordonné par Réglement Grand-Ducal du 20.04.95. Mémorial A - No 54 du 7 juillet 1995, p. 1385. |
| NL | 8.01.93<br>24.09.93<br>25.03.94<br>19.01.95<br>(Via SJ) 05.09.95 | en cours<br>en cours<br>en cours<br>en cours<br>Wet van 19 mei 1994, houdende wijziging van de Wet op de Telecommunicatievoorzieningen voor wat betreft de bepalingen met betrekking tot elektromagnetische compatibiliteit; Staatsblad Jaargang 1995, nr. 386. |
| UK | 3.11.92<br><br>23.01.95 | Stat. In. 1992 - N° 2372 - The Electromagnetic compatibility Regulations of 5.10.92 - en vigueur: 28.10.92<br>EMC Amendment Regulations 1994 No 3080 coming into force v30.12.94 vs. 01.05.95 |
| GR | 11.10.94<br>13.09.95 | Décision ministérielle 94649/8682/94 transposant 89/336 du 13.09.94 |

| | | |
|---|---|---|
| **E** | 14.05.92<br>7.04.94<br>22.06.94<br>SG(94) A/15192 | R. Decreto 444/1994 du 11.03.94 - BOE n° 78 du 1.04.94 - p. 10.286<br>Transposition en droit interne de la dir. 93/0068 - Proyecto de Real Decreto que modificará el Real Decreto 444/1994 |
| **PO** | 19.05.92<br>lois réunion-paquet<br><br><br><br>25.08.94 | 1) Drecreto-Lei n° 74/92 du 29.04.92 - pub. Diario Rep. - I Serie A - N° 99 du 29.04.92 - p. 1978/79<br>2) Portaria n° 767 - A/93 du 31.08.93 - Diario da Rep. I Serie B N° 204 du 31.08.93 - p. 4600 (2)<br>Communication relative à la transposition en droit interne dir. 93/0068<br>Projet (Projectos de alteração quer ao Decreto-Lei n°74/92) |
| **FIN** | 31.08.94 | Reference EMC Regulation re. telecommunications and radio products is THK 24A/94; Issued by the Telecommunications Administration Centre on 31/08/1994. |
| **S** | | EMC Act (ref. SFS 1992:1512).<br>Ordinance re. EMC (ref. SFS 1993:1067). Last amendment in (SFS 1993:1329).<br>National Electrical Safety Board regulations re. EMC (ref.ELSÄK-FS 1995:5). |
| **A** | | Elektromagnetische Verträglichkeitsverordnung 1993 - EMVV 1993 (Federal Law Gazette/BGBl n° 43/1994);<br>Elektromagnetische Verträglichkeitsverordnung 1995 - EMVV 1995 (Federal Law Gazette/BGBl n° 52/1995 |

# ANNEX 4

## Competent Authorities

| Member State | Competent Authorities | Sectors of Activity |
|---|---|---|
| Austria | **Bundesministerium für wirtschaftliche Angelegenheiten Abteilung IX/4**<br>Landstraßer Haupstraße 55-57<br>1031 WIEN | All equipment except telecommunication equipment |
| Austria | **Bundesministerium für öffentliche Wirtschaft und Verkehr**<br>Radetzkystraße 2<br>1030 WIEN | Telecommunication equipment |
| Austria | **Zulassungsbüro**<br>Nordbergstraße 15<br>1091 WIEN | Telecommunication equipment |
| Austria | **Fernmeldebüro für Wien, Niederösterreich und Burgenland**<br>Nordbergstraße 15<br>1091 WIEN | Telecommunication equipment |
| Austria | **Fernmeldebüro für Steiermark und Kârten**<br>Neutorgasse 46<br>8011 GRAZ | Telecommunication equipment |
| Austria | **Fernmeldebüro für Oberösterreich und Salzburg**<br>Dorngasse 1<br>4010 LINZ | Telecommunication equipment |
| Austria | **Fernmeldebüro für Tirol und Voralberg**<br>Maximilianstraße 2<br>6010 INNSBRUCK | Telecommunication equipment |
| Belgium | **Ministère des Affaires Economiques Administration de l'Energie Service Equipements et Produits Energétiques**<br>154, Bd Emile Jacqmain<br>1210 BRUXELLES | Autorité fédérale pour la coordination de la mise en application de la législation CEM Haute surveillance et surveillance du marché pour tout produit |
| Belgium | **Ministère de l'Emploi et du Travail Administration de la Sécurité du Travail**<br>Rue Belliard, 51<br>1040 BRUXELLES | Surveillance du marché dans le domaine des produits relevant de la protection des travailleurs |

| | | |
|---|---|---|
| Belgium | **Institut Belge des Services Postaux et des Télécommunications (auprès du Ministère des Communications et de l'Infrastucture)**<br>Tour Astro<br>Av. de l'Astronomie, 14, BP21<br>1030 BRUXELLES | Surveillance du marché dans le domaine des produits relevant des perturbations radio émetteurs et récepteurs radio. Réseau de télécommunication. |
| Denmark | **Telestyrelsen**<br>Holsteinsgade 63<br>2100 COPENHAGEN | |
| Finland | **Electrical Inspectorate**<br>P.O. Box 21<br>00211 HELSINKI | Industrial manufacturing equipment<br>Medical and scientific apparatus<br>Information technology equipment<br>Domestic appliances and household electronic equipment<br>Educational electronic equipment<br>Lights and fluorescent lamps |
| Finland | **Telecommunications Administration Centre**<br>P.O. Box 53<br>00211 HELSINKI | Telecommunications terminal equipment<br>Radio equipment<br>Telecommunications networks |
| France | **Ministère de l'Industrie, des Postes et des Télécommunications et du Commerce Exterieur**<br>•Direction Générale des Stratégies Industrielles<br>Sous-Direction de la Qualité pour l'Industrie et la Normalisation<br>22, rue Monge<br>75005 PARIS | |
| France | **Ministère de l'Industrie, des Postes et des Télécommunications et du Commerce Exterieur**<br>•Direction Générale des Postes et Télécommunications<br>Sous-Direction des Affaires Techniques<br>20, avenue de Ségur<br>75007 PARIS | |

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| France | **Ministère de l'Economie**<br>•Direction Générale de la Concurrence, de la Consommation et de la Répression des Fraudes<br>Sous-Direction Qualité et Sécurité<br>59, boulevard Vincent Auriol<br>Télédoc 051<br>75703 PARIS Cedex 13 | |
| France | **Ministère du Budget**<br>•Direction Générale des Douanes et des Droits Indirects.<br>Sous-Direction de l'Union Douanière et de la Coopération Internationale<br>23 bis,rue de l'Université<br>75007 PARIS | |
| Germany | **Bundesamt für Post und Telekommunikation (BAPT)**<br>Referat 124<br>Postfach 8001<br>55003 MAINZ | All equipment |
| Germany | **Bundesministerium für Post und Telekommunikation (BMPT)**<br>Referat 314<br>Postfach 8001<br>53105 BONN | All equipment |
| Greece | **Ministry of Transport & Communications**<br>49, Syngrou Avenue<br>11780 ATHENS | |
| Ireland | **NSAI**<br>**Department Enterprise and Employment**<br>Glasnevin<br>DUBLIN 9 | |
| Italy | **Ministero delle Poste e delle Telecommunicazioni**<br>Viale America 201<br>00144 ROMA | |
| Italy | **Ministero dell'Industria, del Commercio e dell'Artigianato (DGPI)**<br>Via Molise 2<br>00187 ROMA | |
| Luxemburg | **Service de l'Énergie de L' Etat**<br>B.P. 10<br>2010 LUXEMBOURG | |

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| Netherlands | **Ministerie van Verkeer en Waterstaat**<br>**Hoofdirectie Telecommunicatie en Post**<br>Postbus 450<br>9700 AL GRONINGEN | |
| Norway | **Directorate for Product and Electrical Safety**<br>P.O.B. 8116<br>0032 OSLO | |
| Norway | **Norwegian Telecommunications Authority (STF)**<br>P.O.B. 447<br>Sentrum<br>0104 OSLO | |
| Portugal | **Instituto das Comunicações de Portugal (ICP)**<br>Av. J. Malhoa, 21<br>1000 LISBOA | |
| Spain | **Ministerio de Obras Pùblicas, transportes y Medio Ambiente**<br>Dirección General de Telecomunicaciones<br>Palacio de Telecomunicaciones<br>Plaza de Cibeles, s/n. Planta 5a<br>28014 MADRID | Equipos de telecomunicación |
| Spain | **Ministerio de Industria y Energia**<br>Dirección General de Calidad y Seguridad Industrial<br>Paseo de la Castellana, 160<br>Planta 12<br>28071 MADRID | Todos los equipos afectos a la Directiva excepto los equipos de telecomunicación. |
| Sweden | **National Electrical Safety Board**<br>P.O.B. 1371<br>11193 Stockholm | National co-ordinating authority for implementing the EMC legislation. Supervision and market surveillance authority concerning EMC for all products with the exception of radio transmitters and equipment intended for connection to the public telecommunications network |
| Sweden | **National Post and Telecom Agency**<br>P.O.B. 5398<br>10249 Stockholm | Supervision and market surveillance<br>authority concerning EMC for radiotransmitters and equipment intended<br>for connection to the public telecommunications network |

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| United Kingdom | **Department of Trade and Industry**<br>Standards Policy Unit<br>151 Buckingham Palace Road<br>LONDON SW1W 9SS | |

# ANNEX 5

## List of Competent Bodies known by the Commission

| Member State | Competent Bodies | Sectors of Activity |
|---|---|---|
| Austria | **Bundesforschungs-und Prüfzentrum Arsenal (BFPZ) Elektrotechnisches Institut (ETI) Elektrotechnische Sicherheit**<br>Faradaygasse 3<br>1030 WIEN | All equipment covered by the Directive with the exception of radio communication transmitters |
| Austria | **Staatliche autorisierte Versuchsanstalt für Radiotechnik TGM-VAR - Electronic testing laboratory**<br>Wexstraße 19 23<br>1200 WIEN | Household and similar appliances<br>Appliances with high power<br>Low-voltage control gear and switch gear<br>Luminaires<br>Transformer and power supply equipment<br>Electronic and information processing devices<br>Motor-operated appliances and tools<br>Electrical installations appliances with electronic |
| Austria | **Technischer Überwachungs-verein Österreich (TÜV-A)**<br>Krugerstraße 16<br>1015 WIEN | Domestic appliances and similar electrical equipment<br>Measuring and control equipment for industrial process<br>High frequency apparatus<br>Television and radio receivers and connected devices<br>Industrial, scientific and medical equipment (ISM) and similar purposes<br>Fluorescent lamps and fluorescent lamp installations<br>Electrical equipment and installations<br>Communication, information processing and telecommunications equipment<br>Traffic technology |
| Austria | **Österreichisches Forschnungs-zentrum Seibersdorf**<br>2444 SEIBERSDORF | All equipment covered by the Directive with the exception of radio communication transmitters |
| Austria | **Österreichischer Verband für Elektrotechnik (ÖVE)**<br>Eschenbachgasse, 9<br>1010 WIEN<br>T : 43-1.587.63.73<br>F : 43-1-586.74.08 | All equipment covered by the EMC Directive |

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| Belgium | **Alcatel Bell Telephone Environmental Test Laboratory**<br>Francis Wellesplein, 1<br>2018 ANTWERPEN | All EMC sectors |
| Denmark | **Copenhagen Telephone Company**<br>**EMC laboratory**<br>**Mr Jens Rahbek**<br>Department NSSLE<br>Tegholmsgade 1<br>2450 COPENHAGEN SV<br>T: 45.33.99.33.53 | |
| Denmark | **DELTA DANISH ELECTRONICS TESTING**<br>**Mr Duvald Christensen**<br>Venlighedsvej 4<br>2970 HOERSHOLM<br>T: 45.42.86.77.22 | |
| Denmark | **Elektronik Centralen**<br>Venlighedsvej, 4<br>2970 HOERSHOLM | Electrical environmental testing (EMC/EMI) including measurement of :<br>. Electrical, magnetic and electromagnetic immunity to radiated fields and conducted interference and electrostatic discharge;<br>. Conducted and radiated electromagnetic emission. |
| Denmark | **Jutland Telephone Company**<br>**Mr Ole HØjlund Christensen**<br>Teleproevningslaboratoriet<br>Slevtvej 30<br>8310 TRANBJERG J<br>T: 45.86.29.33.66 | |
| Denmark | **Jydsk Telefon**<br>Teleproevningslaboratoriet<br>Sletvej 30<br>8310 TRANBJERG J | Testing of telephone equipment including :<br>. Terminal equipment;<br>. Telephones;<br>. Cordless telephones;<br>. PABCs;<br>. ISDN telephones;<br>. ISDN terminal equipment.<br><br>EMC testing, including :<br>. Emission of electromagnetic disturbances;<br>. Immunity against electromagnetic disturbances. |

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| Denmark | **Telecom A/S**<br>Telelaboratoriet<br>Telegade 2<br>2630 TAASTRUP<br>T: 45.42.52.91.11 | EMC testing, including :<br>. Emission of electromagnetic disturbances;<br>. Immunity against electromagnetic disturbances.<br><br>Community antenna systems and cable TV systems, including testing of :<br>. Equipement to be used in CATV and SMATV systems;<br>. Equipment to be used for reception of satellite TV and radio signals.<br><br>Radiocommunication, including testing of :<br>. Equipment for private use, such as remote control equipment, telemetry equipment and alarm sytems;<br>. Terminals for public radio based telecommunications services and emergency and safety equipment for ships and aircrafts, e.g. mobile telephones, radio paging equipment and cordless telephones.<br><br>Data and textcommunication, including testing of :<br>. Information technology equipment and telecommunications equipment;<br>. Protocols for data and textcommunications.<br><br>Telephone equipment for :<br>. The public switched telephone network (PSTN);<br>. Leased lines including of PABX's telephones, cordless telephones, modems, telefax equipment, answer back equipment and the like.<br><br>ISDN, including testing of :<br>. ISDN terminal equipment;<br>. Software for terminal equipment. |
| Finland | **Electrical Inspectorate**<br>**FIMKO**<br>P.O. Box 21<br>00211 HELSINKI | Industrial manufacturing equipment<br>Medical and scientific apparatus<br>Information technology equipment<br>Domestic appliances and household electronic equipment<br>Educational electronic equipment<br>Lights and fluorescent lamps |
| Finland | **Telecom Finland**<br>Telecom Engineering<br>Testing Laboratory<br>P.O Box 15<br>00211 HELSINKI | All electrical and electronic equipment |

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| France | **AEMC Mesures**<br>**Z.I. des Garennes**<br>4, rue des Longuerais<br>78440 GARGENVILLE | Pour toute catégorie de matériels et d'appareils |
| France | **AEMC Mesures**<br>7, rue Georges Meliès<br>69680 CHASSIEU | Pour toute catégorie de matériels et d'appareils |
| France | **ASEFA Plate forme F03-Usine M3**<br>**Schneider Electric**<br>23, rue du Vieux Chêne<br>38340 MEYLAN | -Appareillages électriques industriels à basse tension<br>-Matériels de fourniture d'énergie<br>-Matériels d'automatisation<br>-Matériels de technologies de l'information et de télécommunications<br>Systèmes convertisseurs de puissance et variateurs de vitesse |
| France | **ASEFA Plate forme K41**<br>**Schneider Electric**<br>33 bis, Avenue du Maréchal Joffre<br>92002 NANTERRE Cédex | -Appareillages électriques industriels à basse tension<br>-Matériels de fourniture d'énergie<br>-Matériels d'automatisation<br>-Matériels de technologies de l'information et de télécommunications<br>Systèmes convertisseurs de puissance et variateurs de vitesse |
| France | **EMITECH**<br>3, rue des Coudriers<br>CAP 78<br>ZA de l'Observatoire<br>78180 MONTIGNY LE BRETONNEUX | Pour toute catégorie de matériels et d'appareils |
| France | **Laboratoire National d'Essais** (LNE)<br>1, rue Gaston Boissier<br>75015 PARIS | Pour toute catégorie de matériels et d'appareils |
| France | **Laboratoire Central des Industries Electriques (LCIE)**<br>32, avenue du Général Leclerc<br>92260 FONTENAY-AUX-ROSES | Pour toute catégorie de matériels et d'appareils |
| Germany | **DEKRA Certification Services (DCS)**<br>Schulze-Delitzsch Str. 49<br>70565 STUTTGART<br>T : 49-711.7861.2747<br>F : 49-711.7861.2615 | All EMC sectors |
| Germany | **TELEKOM Logistikzentrum Zentrallabor EMV**<br>Sonnenschein 38<br>48565 STEINFURT<br>T : 49-2551.10.610<br>F : 49-2551.10.610 | All EMC sectors |

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|---|---|---|
| Germany | **Ingenieurbüro Dr. Rašek**<br>Moggast<br>91320 EBERMANNSTADT<br>T : 49-9194.9016<br>F : 49-9194.8125 | All EMC sectors |
| Germany | **Bundesamt für Zulassungen in der Telekommunikation (BZT)**<br>Postfach 10 04 43<br>66004 SAARBRÜCKEN<br>T : 49-681.598.1207<br>F : 49-681.598.1632 | All EMC sectors |
| Germany | **TÜV Rheinland GmbH Sicherheit und Umweltschutz**<br>Am grauen Stein<br>51105 KÖLN<br>T: 49-221.806.1769<br>F :49-221.806.1796 | All EMC sectors |
| Germany | **TÜV Product Service GmbH**<br>Ridlerstr. 31<br>80339 MÜNCHEN<br>T: 49-89.50084.180<br>F :49-89.50084.230 | All EMC sectors |
| Germany | **CETECOM Certification and Testing in Communications GmbH**<br>Im Teelbruch 122<br>45219 ESSEN<br>T : 49-2054.9519.83<br>F : 49-2054.9519.83 | All EMC sectors |
| Germany | **VDE Prüf und Zertifizierungsinstitut**<br>Merianstr. 28<br>63069 OFFENBACH<br>T : 49-69.8306.225<br>F : 49-69.8306.555 | All EMC sectors |
| Germany | **ZAM e.V.**<br>**Anwenderzentrum**<br>In der Neuen Welt 10<br>87700 MEMMINGEN<br>T :49-8331.3099<br>F :49-8331.87897 | All EMC sectors |
| Germany | **LGA**<br>**Abteilung Elektro-, Medizin- und Anlagentechnik**<br>**EMV-Prüfzentrum**<br>Tillystraße 2<br>90431 NÜRNBERG<br>T : 49-911.6555.790<br>F : 49-911.6555.793 | All EMC sectors |

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| Germany | **SLG Prüf und Zertifizierungzentrum GmbH**<br>Postfach 421<br>09004 CHEMNITZ<br>T : 49-371.446.605<br>F : 49-371.446.601 | All EMC sectors |
| Germany | **TÜV Südwestdeutschland e.V.**<br>Dudenstraße 28<br>68167 MANNHEIM<br>T : 49-621.395.653<br>F : 49-621.395.652 | All EMC sectors |
| Germany | **J.Schmitz GmbH**<br>Chiemseestraße 21<br>83022 ROSENHEIM<br>T : 49-8031.13255<br>F : 49-8031.15906 | All EMC sectors |
| Germany | **Deutsche System Technik GmbH (DST)**<br>Edisonstraße 3<br>24145 KIEL<br>T : 49-431.7109.487<br>F : 49-431.7109.503 | All EMC sectors |
| Germany | **Siemens AG**<br>**ZFE GR TN ZS**<br>Postfach 3220<br>91050 ERLANGEN<br>T : 49-9131.733.177<br>F : 49-9131.733.265 | All EMC sectors |
| Germany | **EURO EMC SERVICE (EES)**<br>**Dr. Hansen GmbH**<br>Potsdamer Str. 18A (TZT)<br>14513 TELTOW<br>T : 49-3328.430.141<br>F : 49-3328.430.142 | All EMC sectors |
| Germany | **Phoenix EMV-Test GmbH**<br>Königswinkel 10<br>32825 BLOMBERG<br>T : 49-5235.95000<br>F : 49-5235.9500.10 | All EMC sectors |
| Germany | **SONY Deutschland GmbH**<br>**Product Compliance Europe**<br>Stuttgarter Straße 106<br>70736 FELLBACH<br>T : 49-711.5858.336<br>F : 49-711.5858.488 | All EMC sectors |
| Germany | **MEB MESSELEKTRONIK BERLIN**<br>Landsberger Allee 399<br>12681 BERLIN<br>T: 49-30.9392.2110<br>F: 49-30.9392.2111 | All EMC sectors |

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| Germany | **VOLKSWAGEN AG**<br>**Technische Entwicklung**<br>**EEVZ (EMV-Zentrum)**<br>Postfach 1732/0<br>38436 WOLFSBURG<br>T : 49-5361.978556<br>F : 49-5361.978989 | All EMC sectors |
| Ireland | **Radio Frequency Technologies Ltd**<br>40 Marrowbone lane<br>DUBLIN 8 | Aerospace equipment;<br>Batteries and cells;<br>Circuit breakers & switches;<br>Computers & peripherals;<br>Household appliances;<br>Electrical & electronic products;<br>Electrical cables;<br>Electrical motors;<br>Fans;<br>Fire fighting & detection equipment;<br>Electrical generators;<br>Fuses;<br>Lamps;<br>Measuring instruments;<br>Medical equipment;<br>Radar equipment;Radio and TV equipment;<br>Safety appliances;<br>Satellites & subassemblies;<br>Telecommunications equipment. |

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| Italy | **Centro Elettrotecnico Sperimentale Italiano "G. Motta" (CESI)**<br>Via Rubattino 54<br>20134 MILANO | EMC areas of competence:<br>All EMC sectors, including in particular:<br>-electrical apparatus and installations<br>-Industrial equipment<br>-Industrial measurement and control apparatus & systems<br>-Power electronics equipment<br>-Aerospace/avionic equipment<br>-Electric traction and traffic control equipment<br>-Radio equipment and broadcast receivers<br>-Information technology and telecommunications equipment<br>-Medical equipment<br>-Measuring instruments and test equipment<br>-Electrical/electronic products and components<br>-Domestic appliances and household equipment<br>-lamps, lighting, appliances and accessories<br><br>EMC phenomena covered:<br>Conducted low frequency phenomena:<br>-slow variation of the supply voltage<br>-harmonics<br>-signalling on the mains supply<br>-voltage fluctuations<br>-voltage dips and interruptions<br><br>Radiated low frequency phenomena:<br>-magnetic field<br><br>Conducted high frequency phenomena:<br>-continuous radio disturbance<br>-discontinuous radio disturbance<br>-induced CW voltages/currents<br>-unidirectional transients<br>-oscillatory transients<br><br>Radiated high frequency phenomena<br>-electromagnetic fields<br>-radiated power<br>-magnetic fields<br>-electric fields<br><br>Electrostatic discharge (ESD) |
| Italy | **Istituto Superiore PT (ISPT)**<br>Viale Europa, 190<br>00144 ROMA | Information technology equipment; Radio equipment and broadcast receivers. |

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| Italy | **Istituto Elettrotecnico Nazionale G. Ferraris (IENGF)**<br>Corso Massimo d'Azeglio<br>10125 TORINO | EMC areas of competence:<br>-Radio & TV broadcast receivers and associated equipment<br>-Domestic appliances and household equipment<br>-Measurement instruments and test equipment<br><br>EMC phenomena covered:<br>Conducted high frequency phenomena<br>-continuous and discontinuous radio disturbances (emission)<br>-induced CW voltages/currents (immunity)<br>Radiated high frequency phenomena<br>-radiated power (emission)<br>-electromagnetic fields(emission) |
| Italy | **Istituto Italiano del Marchio di Qualità (IMQ)**<br>Via Quintiliano 43<br>20138 MILANO | Electrical apparatus & installations<br>Industrial measurement and control apparatus & systems<br>Radio equipment & broadcast receivers<br>Information technology equipment<br>Medical equipment<br>Measuring instruments and test equipment<br>Electrical/electronic products and components<br>Domestic appliances and household electronic equipment<br>Lamps, lighting appliances and accessories |
| Luxemburg | **Service de l'Énergie de L' Etat**<br>B.P.10<br>2010 LUXEMBOURG | All EMC sectors |
| Netherlands | **Gastec NV**<br>POB 137<br>7300 AC APELDOORN<br>T: 31.55.539.33.93<br>F: 31.55.539.34.94 | Industrial manufacturing equipment<br>Domestic appliances and household electronic equipment |
| Netherlands | **NMi Certin B.V.**<br>Testcentrum Niekerk<br>P.O. Box 15<br>9822 ZG NIEKERK | All EMC sectors |
| Netherlands | **NMi Certin B.V.**<br>Testcentrum Delft<br>P.O. Box 654<br>2600 AR DELFT | All EMC sectors |
| Netherlands | **N.V. KEMA**<br>Postbus 9035<br>6800 ET ARNHEM | All EMC sectors |

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| Netherlands | **Telefication B V**<br>Postbus 60004<br>6800 JA ARNHEM | Telecommunication equipment |
| Norway | **Det Norske Veritas Classification A/S**<br>Divisjon Norden -<br>Laboratorieseksjon 102<br>Veritasveien<br>1322 HOVIK<br>T: 47.67.57.99.00<br>F: 47.67.57.89.60 | -Domestic, commercial and light industry equipment .<br>-Apparatus intended for use in industrial environment |
| Norway | **NEMKO**<br>P.O. Box 73 Blindern<br>0314 OSLO<br>T: 47.22.96.03.30<br>F: 47.22.69.86.36 | -Domestic radio & television receivers<br>- Industrial manufacturing equipment<br>- Domestic, commercial, light industry equipment<br>-Domestic appliances & household electronic equipment<br>-Industrial, scientific & medical equipment<br>-Information technology equipment<br>-Lights & fluorescent lamps<br>Equipment for connection to the electricity supply system<br>-For the above product categories the field of activities includes measurement of emission of conducted transient and continuous disturbances and radiated radio frequency disturbances, and also immunity to external disturbances consisting of transient and continuous disturbances and radiated disturbances and electrostatic discharges. |
| Portugal | **Instituto Electrotécnico Português (IEP)**<br>Rua de S. Gens, 3717<br>Senhora da Hora<br>4450 Matosinhos | Aparelhos electrodomésticos, aparelhos portáteis e aparelhos análogos |
| Portugal | **Instituto das Comunicações de Portugal (ICP)**<br>**Laboratório de Compatibilidade Electromagnética**<br>Sede: Av. José Malhoa, 21<br>1000 Lisboa<br>Laboratório: Alto do Paimão<br>Barcarena<br>2745 Queluz | Aparelhos eléctricos e electrónicos para uso doméstico e na pequena industria,<br>aparelhos electrodomésticos,<br>aparelhos portáteis e aparelhos eléctricos análogos,<br>aparelhos de tratamento de informação,<br>aparelhos industriais, cientificos e medicinais,<br>lâmpadas fluorescentes e aparelhos de iluminação |

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| Spain | **LABORATORIO CENTRAL OFICIAL DE ELECTROTECNIA (LCOE)**<br>José Gutierrez Abascal, 2<br>28006 MADRID | - Electrodomésticos y luminarias<br>- Equipos de tratamiento de la información<br>- Equipos de radio, televisión y video<br>- Equipos para control de productos industriales<br>- Aparatos industriales, cientificos y médicos<br>- Lineas, equipos y aparamenta de alta tensión<br>- Equipos de señalización<br>- Fuentes de alimentación |
| Spain | **CENTRO DE TECNOLOGIA DE LAS COMUNICACIONES (CETECOM)**<br>Parque Tecnológico de Andalucia<br>Severo Ochoa s/n<br>Apartado de Correos 78<br>29590 CAMPANILLAS (MALAGA) | - Electrodomésticos y luminarias<br>- Equipos de tratamiento de la información<br>- Equipos de radio, televisión y video<br>- Equipos para control de productos industriales<br>- Aparatos industriales, cientificos y médicos<br>- Lineas y equipos de alta tensión<br>- Equipos de señalización |
| Spain | **LABORATORI GENERAL D'ASSAIGS I INVESTIGACIONS (LGAI)**<br>Ctra. de acceso a la Facultad de Medicina de la U.A.B.<br>08290 CERDANYOLA DEL VALLES (BARCELONA) | - Electrodomésticos y luminarias<br>- Equipos de tratamiento de la información<br>- Equipos de radio, televisión y video<br>- Equipos para el control de productos industriales<br>- Aparatos industriales, cientificos y médicos<br>- Aparamenta de alta tensión |
| Spain | **ASOCIACION DE INVESTIGACION INDUSTRIAL ELECTRICA (ASINEL)**<br>Ctra. de Villaviciosa de Odón a Mostoles Km. 1,700<br>28935 MOSTOLES (MADRID) | - Electrodomésticos y luminarias<br>- Equipos de tratamiento de la información<br>- Equipos para control de productos industriales<br>- Aparatos industriales, cientificos y médicos<br>- Lineas y equipos de alta tensión<br>- Fuentes de alimentación |
| Spain | **CENTRO DE INVESTIGACION TECNOLOGICA (LABEIN)**<br>Cuesta de Olaveaga, 16<br>48013 BILBAO (VIZCAYA) | - Electrodomésticos<br>- Equipos de tratamiento de la información<br>-Equipos para control de productos industriales |
| Spain | **LABORATORIO DE ENSAYOS ELECTRICOS DE CIAT**<br>Julian Camarillo, 53 bis<br>28037 MADRID | - Electrodomésticos y luminarias<br>- Equipos de radio, televisión y video |

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| Sweden | **SEMKO AB**<br>Box 1103<br>16422 KISTA | -Consumers products and office equipment and products for light and normal industrial environment, and also equivalent products for laboratory and hospital environment including electromedical equipment<br>-Equipment for connection to the electricity supply system and to tele and radio communication systems.<br>-For the above products categories the field of activities includes measurement of emission of conducted transient and continuous disturbances and radiated radio frequency disturbances, and also immunity to external disturbances consisting of transient and continuous conducted disturbances and radiated disturbances and electrostatic discharges. |
| Sweden | **Swedish National Testing and Research Institute (SP)**<br>Box 857<br>50115 BORAS | Consumer products and office equipment and products for light and normal industrial environment, and also equivalent products for laboratory and hospital environment including electromedical equipment<br>Equipment for connection to the electricity supply system and to tele and radio communication systems.<br>For the above products categories the field of activities includes measurement of emission of conducted transient and continuous disturbances and radiated radio frequency disturbances, and also immunity to external disturbances consisting of transient and continuous conducted disturbances and radiated disturbances and electrostatic discharges. |

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| Sweden | **TELUB TEKNIK AB**<br>Box 360<br>83125 ÖSTERSUND<br>T: 46.63 15 60 00<br>F: 46.63 15 61 99 | -Office equipment and products for light and normal industrial environment, and also equivalent products for laboratory and hospital environment including electromedical equipment<br>-Equipment for connection to the electricity supply system and to tele and radio communication<br>-Industial equipment including equipment installed in user environment.<br>-For the above products categories the field of activities includes measurement of emission of conducted transient and continuous disturbances and radiated radio frequency disturbances, and also immunity to external disturbances consisting of transient and continuous conducted disturbances and radiated disturbances and electrostatic discharges. |
| Sweden | **SVENSK EMC - Certifierung AB (SECAB)**<br>72167 VÄSTERÅS | Consumer products, office and industrial equipment, products for housing, commercial, industrial and railway environment, and also similar products and medical technical products for laboratory and hospital environment, and equipment for connection to the electricity supply system and to telecommunication and radiocommunication systems<br><br>For the above product categories the field of activities includes: measurement of emission of conducted transient and continuous disturbances and radiated radio frequency disturbances and also immunity to external disturbances consisting of transient and continuous conducted disturbances and radiated disturbances and electrostatic discharges |

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| United-Kingdom | **Assessment Services Ltd**<br>Segensworth Road<br>Tichfield<br>Fareham<br>HAMPSHIRE PO15 5RH<br>T: 44.1.329 443300<br>F: 44.1.329 443421 | Domestic and television receivers<br>Domestic appliances and household electronic equipment<br>Lights and fluorescent lamps<br>Mobile radio equipment<br>Mobile radio and commercial radio-telephone equipment<br>Medical and scientific apparatus<br>IT equipment<br>Telecommunications networks and apparatus<br>Radio and television broadcast transmitters<br>Utility equipment |
| United-Kingdom | **AQL-EMC Ltd**<br>16 Cobham Road<br>Ferndown Industrial Estate<br>Ferndown<br>Poole<br>DORSET BH21 7PG<br>T: 44.1.202 861175<br>F: 44.1.202 861176 | Domestic radio and television receivers<br>Domestic appliances & household electronic equipment<br>Lights and fluorescent lamps<br>IT equipment<br>Telecommunications equipment<br>Radio and television broadcast transmitters<br>Industrial equipment<br>Utility equipment |
| United-Kingdom | **BNR Europe Ltd**<br>EMC Engineering Centre<br>London Road<br>Harlow<br>ESSEX<br>T: 44.1.279 429531<br>F: 44.1.279 441551 | IT equipment<br>Telecommunications networks and apparatus<br>Power supply equipment<br>Test & measuring equipment |
| United-Kingdom | **BSI Testing**<br>EMC Laboratory<br>Maylands Avenue<br>Hemel Hempstead<br>Herts HP2 4SQ<br>T: 44.1.442.230442<br>F: 44.1.442.23142 | Domestic appliances and household electronic equipment<br>Medical and scientific apparatus<br>Lighting and fluorescent lamps<br>IT equipment<br>Telecommunications networks, terminals and apparatus<br>Industrial equipment<br>Test and measuring equipment<br>Domestic radio and television receivers |
| United-Kingdom | **BRITISH APPROVALS BOARD FOR TELECOMMUNICATIONS**<br>Claremont House<br>34 Molesey Road<br>Hersham<br>SURREY KT12 4RQ<br>T : 44.1.932.222289<br>F : 44.1.932.229756 | Telecommunications networks, terminals and apparatus<br>Telecommunications equipment<br>IT equipment<br>Radiotelephone equipment |

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|---|---|---|
| United-Kingdom | **British Telecom Research Laboratories**<br>EMC Engineering Group<br>Martlesham Heath<br>Ipswich<br>SUFFOLK<br>T: 44.1.473 642319<br>F: 44.1.473 644671 | Telecommunications networks, terminals and apparatus<br>IT equipment |
| United-Kingdom | **Cambridge Consultants Ltd**<br>Science Park<br>Milton Road<br>CAMBRIDGE CB4 4DW<br>T: 44.1.223 420024<br>F: 44.1.223 523373 | Domestic appliances and household electronic equipment<br>Telecommunications networks & apparatus<br>IT equipment<br>Industrial equipment |
| United-Kingdom | **Chase EMC Ltd**<br>Broadwood Test Centre<br>Rusper Road<br>Capel<br>Dorking<br>SURREY RH5 5HS<br>T: 44.1.306.713333<br>F: 44.1.306.713303 | Domestic appliances and household electronic equipment<br>Domestic radio and television receivers<br>Medical and scientific apparatus<br>IT equipment<br>Telecommunications networks and apparatus<br>Utility equipment |
| United-Kingdom | **Dedicated Microcomputers Ltd**<br>1 Hilton Square<br>Pendlebury<br>MANCHESTER M27 1DL<br>T: 44.1.61 7944965<br>F: 44.1.61 7940424 | Domestic appliances and household electronic equipment<br>Domestic radio and television receivers<br>Scientific apparatus<br>IT equipment<br>Utility equipment |
| United-Kingdom | **Design to Distribution Ltd**<br>Westfields House<br>West Avenue<br>Kidsgrove<br>Stoke-On-Trent<br>STAFFORDSHIRE ST7 1TL<br>T: 44.1.782 774234<br>F: 44.1.782 784210 | Domestic appliances and household electronic equipment<br>Medical and scientific apparatus<br>IT equipment<br>Industrial equipment |
| United-Kingdom | **EMC Projects Ltd**<br>Holly Grove Farm<br>Verwood Road<br>Ashley<br>Ringwood<br>HAMPSHIRE BH24 2DB<br>T: 44.1.425 479979<br>F: 44.1.425 479979 | Aeronautical and marine apparatus<br>Domestic appliances and equipment<br>Industrial manufacturing and control equipment<br>Medical and scientific apparatus<br>IT equipment<br>Educational equipment<br>Telecommunications networks and apparatus<br>Lights and fluorescent lamps<br>Transport and traffic systems<br>Measurement and metering equipment |

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|---|---|---|
| United-Kingdom | **ERA Technology Ltd**<br>EMC Department<br>Cleeve Road<br>Leatherhead<br>SURREY KT22 7SA<br>T: 44.1.372 374151<br>F: 44.1.372 374496 | Domestic appliances and household electronic equipment<br>Domestic radio and television receivers<br>Lights and fluorescent lamps<br>Mobile radio and commercial radiotelephone equipment<br>Medical and scientific apparatus<br>IT equipment<br>Telecommunications networks and apparatus<br>Radio and television broadcast transmitters<br>Industrial equipment<br>Utility equipment<br>Test and measuring equipment |
| United-Kingdom | **GEC Marconi Avionics Ltd**<br>Central Quality Department<br>Airport Works<br>Rochester<br>KENT ME1 2XX<br>T: 44.1.634 816542<br>F: 44.1.634 816636 | Domestic appliances and household electronic equipment<br>Domestic radio and television receivers<br>Lights and fluorescent lamps<br>Medical and scientific apparatus<br>IT equipment<br>Telecommunications networks and apparatus<br>Test and measuring equipment<br>Aeronautical and marine radio apparatus<br>Industrial equipment<br>Utility equipment |
| United-Kingdom | **GEC Marconi Avionics Ltd**<br>Maxwell Building<br>Donibristle Industrial Park<br>Dunfermaline<br>FIFE KY11 5LB<br>T: 44.1.383 822131<br>F: 44.1.383 824280 | Aeronautical and marine radio apparatus<br>Domestic appliances and household electronic equipment<br>Domestic radio and television receivers<br>Electrical/electronic products<br>Industrial equipment<br>IT equipment<br>Medical and scientific apparatus<br>Telecommunications networks, terminals and apparatus<br>Test and measuring equipment<br>Utility equipment |
| United-Kingdom | **Hunting Communication Technology Ltd**<br>Electromagnetic Assessment Group<br>R.S.R.E. Pershore<br>WORCHESTERSHIRE<br>WR10 2RW<br>T: 44.1.386 555522<br>F: 44.1.386 555547 | Electrical household appliances and portable tools<br>Industrial equipment, machinery and control systems<br>IT equipment<br>Avionic systems<br>Medical and scientific apparatus<br>Marine equipment<br>Educational electronic equipment<br>Test and measuring equipment<br>Lights and fluorescent lamps |

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|---|---|---|
| United-Kingdom | **IBM (UK) Ltd**<br>EMC Laboratory<br>POB 30<br>Spango Valley<br>GREENOCK PA16 0AH<br>T: 44.1.475 892000<br>F: 44.1.475 85510 | IT equipment |
| United-Kingdom | **IBM (UK) Ltd**<br>EMC Laboratory<br>Hursley Park<br>Winchester<br>HAMPSHIRE SO21 2JN<br>T: 44.1.962 844433<br>F: 44.1.962 842327 | IT equipment |
| United-Kingdom | **Inchcape Testing Services (UK) Ltd**<br>Manfield Park<br>Cranleigh<br>SURREY GU6 8PY<br>T: 44.1.483 268800<br>F: 44.1.483 267579 | Domestic appliances and household electronic equipment<br>IT equipment<br>Lights and fluorescent lamps<br>Electrical/electronic products<br>Industrial products<br>Medical and scientific apparatus<br>Utility equipment |
| United-Kingdom | **Interference Technology International**<br>41-42 Shrivenham Hundred Business Park<br>Shrivenham<br>Swindon<br>WILTSHIRE SN6 8TZ<br>T: 44.1.793 783137<br>F: 44.1.793 782310 | Domestic radio and television receivers<br>Industrial manufacturing equipment<br>Mobile radio and commercial radiotelephone equipment<br>Medical and scientific apparatus<br>IT equipment<br>Domestic appliances and household electronic equipment<br>Aeronautical and marine radio apparatus<br>Educational electronic equipment<br>Telecommunications networks and apparatus<br>Radio and television broadcast transmitters<br>Lights and fluorescent lamps |
| United-Kingdom | **Kingston Telecommunication Laboratories (EMC)**<br>Newlands Science Park<br>Inglemire Lane<br>Hull<br>HUMBERSIDE HU6 7TG<br>T: 44.1.482 801801<br>F: 44.1.482 801806 | Domestic radio and television receivers<br>Industrial manufacturing equipment<br>Medical and scientific apparatus<br>IT equipment<br>Domestic appliances and household electronic equipment<br>Educational electronic equipment<br>Telecommunications networks, terminals and apparatus |

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|---|---|---|
| United-Kingdom | **Lloyd's Register of Shipping**<br>Lloyd's Register House<br>29 Wellesley Road<br>Croydon<br>SURREY CRO 2AJ<br>T: 44.1.81 6814040<br>F: 44.1.81 6816814 | Domestic appliances and household electronic products<br>IT equipment<br>Lights and fluorescent lamps<br>Marine equipment<br>Medical and scientific apparatus<br>Telecommunications networks and apparatus<br>Utility equipment |
| United-Kingdom | **Loss Prevention Council Laboratories**<br>Melrose Avenue<br>Borehamwood<br>HERTS WD6 2BJ<br>T: 44.1.81 2072345<br>F: 44.1.81 2076305 | Fire detection and fire alarm systems<br>Intruder detection and intruder alarm systems |
| United-Kingdom | **Lucas Proving Centre**<br>Dog Kennel Lane<br>Shirley<br>Solihull<br>WEST MIDLANDS B90 4JJ<br>T: 44.1.21 6274343<br>F: 44.1.21 6274353 | Electrical/electronic products<br>IT equipment<br>Test and measuring equipment<br>Industrial power and control equipment<br>Weapons and components |
| United-Kingdom | **MIRA**<br>Watling Street<br>Nuneaton<br>WARWICKSHIRE CV10 0TU<br>T: 44.1.203.348541<br>F: 44.1.203.353772 | Electrical/electronic products, components, digital equipment |
| United-Kingdom | **OFFER**<br>Electricity Meter Examining Service<br>Hagley House<br>Hagley Road<br>Edgbaston<br>BIRMINGHAM B16 8QG<br>T: 44.1.21 456 2100<br>F: 44.1.21 456 4664 | Electrical energy meters and ancillary equipment |
| United-Kingdom | **Radio Frequency Investigation Ltd**<br>Dunlop House<br>Dunlop<br>AYRSHIRE KA3 4BD<br>T: 44.1.560 483813<br>F: 44.1.560 484408 | Domestic radio and television receivers<br>Domestic appliances and household electronic equipment<br>Lights and fluorescent lamps<br>Medical and scientific apparatus<br>IT equipment<br>Telecommunications networks and apparatus<br>Industrial equipment |

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|---|---|---|
| United-Kingdom | **Radio Technology Group**<br>Whyteleafe Hill<br>Whyteleafe<br>SURREY CR3 0YY<br>T: 44.1.81 6608456<br>F: 44.1.81 6689856 | Maritime mobile equipment |
| United-Kingdom | **Salford University Business Services Ltd**<br>Technology House<br>Salford University Business Pak<br>Lissadel Street<br>SALFORD M6 6AP<br>T: 44.1.61.9570012<br>F: 44.1.61.7377700 | Domestic appliances and household electronic equipment<br>IT equipment<br>Test and measuring equipment |
| United-Kingdom | **SGS (UK) Ltd**<br>Hutton Building<br>St.Michael's Way<br>SUNDERLAND SR1 3SD<br>T: 44.1.91 515 2663<br>F: 44.1.91 515 2670 | Domestic radio and television receivers<br>Domestic appliances and household electronic equipment<br>Lights and fluorescent lamps<br>Medical and scientific apparatus<br>IT equipment<br>Utility equipment<br>Telecommunications equipment<br>Test and measuring equipment |
| United-Kingdom | **TRL EMC Ltd**<br>Long Green<br>Forthampton<br>Tewkesbury<br>GLOUCESTERSHIRE<br>GL19 4QH<br>T: 44.1.684.833818<br>F: 44.1.684.833858 | Domestic television and radio receivers<br>Industrial manufacturing equipment<br>Domestic, commercial, light industrial equipment<br>Mobile radio equipment, land and maritime equipment<br>Domestic appliances and household electronic equipment<br>Industrial, scientific and medical equipment<br>IT equipment<br>Lights and fluorecent lamps<br>Radio transmitters<br>Utility equipment |
| United-Kingdom | **University of Paisley**<br>Electromagnetic Compatibility Centre<br>High Street<br>PAISLEY PA1 2BE<br>T: 44.1.41 8483415<br>F: 44.1.41 8870812 | Electrical/electronic products & components<br>Telecommunications networks, terminals and apparatus<br>Domestic appliances and household electronic equipment<br>IT equipment<br>Marine equipment<br>Domestic, commercial, light industrial equipment |

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|---|---|---|
| United-Kingdom | **York Electronics Centre**<br>University of York<br>Heslington<br>YORK YO1 5DD<br>T: 44.1.904.432323<br>F: 44.1.904.432333 | IT equipment<br>Electrical/electronic products and components<br>Lights and fluorescent lamps<br>Domestic, commercial, light industrial equipment |

# ANNEX 6

## List of Notified Bodies
## published in the Official Journal of the European Communities.

| Member State | Notified Bodies | Sector of Activity | Reference of the Official Journal |
|---|---|---|---|
| Austria | **Technischer Überwachungs-verein Österreich (TÜV-A)**<br>Krugerstraße 16<br>1015 Wien<br>N° 0408 | Radiocommunication transmitters | C 203 of 23/07/1994 |
| Austria | **Österreichisches Forschnungs-zentrum Seibersdorf (Austrian Research Centre Seibersdorf)**<br>2444 Seibersdorf<br>N° 0438 | Radiocommunication transmitters | C 203 of 23/07/1994 |
| Belgium | **Association AIB / Vincotte**<br>Avenue André Drouard, 27-29<br>1160 Bruxelles<br>N° 0026 | | C 203 of 23/07/1994 |
| Denmark | **Telecom Ltd**<br>Telelaboratoriet<br>Telegade 2<br>2630 TAASTRUP<br>N° 0189 | | C 306 of 24/11/1992 |
| Finland | **Telecommunications Administration Center**<br>P.O. Box 53<br>00211 HELSINKI<br>N° 0523 | Radiocommunication transmitters | |
| France | **EMITECH**<br>3, rue des Coudriers-CAP 78<br>ZA de l'Observatoire<br>78180 MONTIGNY LE BRETONNEUX<br>N°0536 | Attestation CE de type pour les appareils conçus pour l'émission des radiocommunications (Art. 10.5) | C280 of 25/10/1995 |
| France | **Laboratoire Central des Industries Electriques (LCIE)**<br>32, avenue du Général Leclerc<br>92260 FONTENAY-AUX-ROSES<br>N° 0081 | Appareils conçus pour l'émission des radiocommunications | |
| Germany | **Bundesamt für Zulassungen in der Telekommunikation (BZT)**<br>Postfach 10 04 43<br>66004 Saarbrücken<br>N° 0188 | | C 306 of 24/11/1992 |

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|---|---|---|---|
| Italy | **Ispettorato Generale delle Telecomunicazioni (IGT)**<br>Viale Europa, 190<br>00144 ROMA<br>N° 0166 | | C 306 of 24/11/1992 |
| Luxemburg | **Service de l'Energie de l'Etat**<br>B.P. 10<br>2010 LUXEMBOURG<br>N° 0499 | All sectors | C 280 of 25/10/1995 |
| Netherlands | **Hoofdirectie Telecommunicatie en Post**<br>Postbus 450<br>9700 AL GRONINGEN<br>N°0167 | | C 203 of 23/07/1994 |
| Portugal | **Instituto das Comunicações de Portugal (ICP)**<br>Av. Jose Malhoa 21<br>1000 LISBOA<br>N°0415 | | C 203 of 23/07/1994 |
| Spain | **Ministerio de Obras Pùblicas, transportes y medio Ambiente**<br>Dirección General de Telecomunicaciones<br>Plaza de Cibeles, s/n<br>Palacio de Comunicaciones<br>28014 MADRID<br>N°0341 | | C.203 of 23/07/1994 |
| United-Kingdom | **British Approvals Board for Telecommunications**<br>Claremont House<br>34 Molesey Road<br>Hersham, Walton on Thames<br>SURREY KT12 4RQ<br>N° 0168 | Radiocommunication transmission apparatus which is telecommunications terminal equipment | C 306 of 24/11/1992 |

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|---|---|---|---|
| United-Kingdom | **Civil Aviation Authority**<br>Safety Regulation Group<br>1E Aviation House, South Area<br>Gatwick Airport<br>WEST SUSSEX RH6 0YR<br>N° 0190 | Aeronautical Mobile<br>-associated ground communications<br>-EPIRB/ELT (Emergency Position Indicating Radio Beacon/Emergency Locating Transmitter)<br>-Ground and airborne equipment for primary and secondary Radar for -<br>-the CAA<br>-The Ministry of Defence; and<br>-private airfield operators<br>-general communications-<br>-ground/air<br>-ground/ground and<br>-air/air and<br>-aeronautical earth station equipment<br><br>Radio Navigation<br>-radio altimeters<br>-ILS (Instrument Landing System)<br>-aeronautical radio beacons<br><br>Satellite aeronautical mobile radio<br>-EPIRB/ELT and voice medium speed data and low speed data in each case via INMARSAT (Satellite operated by the International Maritime Satellite Organisation)<br><br>Aeronautical radionavigation<br>-ILS/MLS (Microwave Landing System)<br>-ATC (Air Traffic Control) marker<br>-radionavigation satellite equipment on board aircraft<br>-hyperbolic navigation aids<br>-NDB<br>VOR (VHF Omnidirectional Range) | C 306 of 24/11/1992 |

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|---|---|---|---|
| United-Kingdom | **Civil Aviation Authority (suite)** | -TACAN/DME (Tractical Air Navigation/Distance Measuring Equipment<br>-Satellite navigation systems<br>-ADS (Automatic Dependent System)<br>-CIS (Co-operative Independent Surveillance<br><br>Radiolocation and radiodetermination<br>-radar<br>-primary<br>-OTHR (Over The Horizon Radar)<br>-secondary<br>-Ground<br>-airborne | |
| United-Kingdom | **Defence Research Agency**<br>Maritime Division<br>ARE Fraser Range<br>Fort Cumberland Road<br>Eastney<br>PORTSMOUTH PO4 9LJ<br>N° 0191 | Radar Systems<br>-harbour, port and coastal<br>-ship-mounted<br>-radar beacons (Racons)<br>-Search and Rescue Transponders (SARTS)<br><br>Non-Radar Systems.<br>-hyperbolic navigation<br>-Pulse 8<br>-Decca Navigator<br>-Omega<br>-Loran<br>-Satellite navigation<br>-Differential systems<br>-Position reporting systems<br><br>NDB (Non-directional Beacons)<br><br>Emergency position indicating radio Beacons | C 306 of 24/11/1992 |
| United-Kingdom | **Radiocommunications Agency**<br>South Quay 3<br>LONDON<br>N° 0192 | All radiocommunication transmission apparatus not provided for by the other UK Notified Bodies | C 306 of 24/11/1992 |

# ANNEX 7

## Harmonised Standards published in the Official Journal of the European Communities

# Commission communication in the framework of Council Directive No 89/336/EEC of 3 May 1989 (1), as amended by Council Directive No 92/31/EEC (2), in relation to the electromagnetic compatibility

(95/C 325/05)

(Text with EEA relevance)

*Publication of titles and references of harmonized standards under the Directive*

| OEN (3) | Reference | Title of the Harmonized Standards | Year of ratification |
|---|---|---|---|
| Cenelec | EN 60947-1 | Low-voltage switchgear and controlgear<br>Part 1: General rules<br>IEC 947-1:1988<br>Modified | 1991 |
| Cenelec | Amendment A11 to EN 60947-1 | Low-voltage switchgear and controlgear<br>Part 1: General rules | 1994 |
| Cenelec | EN 61131-2 | Programmable controllers<br>Part 2: Equipment requirements and test<br>IEC 1131-2:1992 | 1994 |
| Cenelec | Amendment A1 to EN 55022 | Limits and methods of measurement of radio disturbance characteristics of information technology equipment<br>CISPR 22:1993/A1:1995 | 1995 |
| Cenelec | EN 60521 | Class 0,5, 1 and 2 alternating-current watt-hour meters<br>IEC 521:1988 | 1994 |

(3) OEN: European Standardization body.
CEN: rue de Stassart/Stassartstraat 36, B-1050 Brussels, tel. (32 2) 519 68 11, fax (32 2) 519 68 19.
Cenelec: rue de Stassart/Stassartstraat 35, B-1050 Brussels, tel. (32 2) 519 68 71, fax (32 2) 519 69 19.
ETSI: BP 152, 06561 F-Valbonne Cedex France, tel. (33) 92 94 42 12, fax (33) 93 65 47 16.

NOTES:

— Any information concerning the availability of the standards can be obtained from the European standardization organizations.

— The Commission ensures the updating of this list (3).

(1) OJ No L 139, 23. 5. 1989.
(2) OJ No L 126, 12. 5. 1992.
(3) OJ No C 44, 19. 2. 1992.
OJ No C 90, 10. 4. 1992.
OJ No C 49, 17. 2. 1994.
OJ No C 241, 16. 9. 1995.

# Commission communication in the framework of Council Directive No 89/336/EEC of 3 May 1989 (1), as amended by Council Directive No 92/31/EEC (2), in relation to the electromagnetic compatibility

(95/C 241/02)

(Text with EEA relevance)

*Publication of titles and references of harmonized standards under the Directive*

| Body | Reference | Title | Year of ratification |
|---|---|---|---|
| CENELEC | EN 50082-2 | Electromagnetic compatibility — Generic immunity standard<br>Part 2: Industrial environment | 1994 |
| CENELEC | Amendment A 12 to EN 55013 | Limits and methods of measurement of radio disturbance characteristics of broadcast receivers and associated equipment | 1993 |
| CENELEC | Amendment A 2 to EN 55014 | CISPR 14: 1985/A2: 1989<br>Limits and methods of measurement of radio interference characteristics of household electrical appliances, portable tools and similar electrical apparatus | 1988 |
| CENELEC | Amendment A 1 to EN 55015 | CISPR 15: 1985/A1: 1989<br>Limits and methods of measurement of radio interference characteristics of fluorescent lamps and luminaires | 1989 |
| CENELEC | EN 55022 | CISPR 22: 1993<br>Limits and methods of measurement of radio disturbance characteristics of information technology equipment | 1992 |
| CENELEC | EN 55104 | Electromagnetic compatibility — Immunity requirements for household appliances, tools and similar apparatus — Product family standard | 1995 |
| CENELEC | Amendment A 1 to EN 60555-3 | IEC 555-3: 1982/A1: 1990<br>Disturbances in supply systems caused by household appliances and similar electrical equipment<br>Part 3: Voltage fluctuations | 1991 |
| CENELEC | EN 60601-1-2 | IEC 601-1-2: 1993<br>Medical electrical equipment<br>Part 1: General requirements for safety — 2. Collateral standard: Electromagnetic compatibility — Requirements and tests | 1992 |
| CENELEC | EN 60945 | IEC 945: 1988<br>Marine navigational equipment — General requirements — Methods of testing and required test results | 1993 |

(1) OJ No L 139, 23. 5. 1989.
(2) OJ No L 126, 12. 5. 1992.

| Body | Reference | Title | Year of ratification |
|---|---|---|---|
| CENELEC | EN 61000-3-2 | IEC 1000-3-2: 1995<br>Electromagnetic compatibility (EMC)<br>Part 3: Limits — Section 2: Limits for harmonic currents emissions (equipment input current ≤ 16 A per phase) | 1994 |
| CENELEC | EN 61000-3-3 | IEC 1000-3-3: 1994<br>Electromagnetic compatibility (EMC)<br>Part 3: Limits — Section 3: Limitation of voltage fluctuations and flicker in low-voltage supply systems for equipment with rated current ≤ 16 A | 1994 |

CENELEC: Rue de Stassart 35, B-1050 Brussels; tel: (32 2) 519 68 71, fax: (32 2) 519 69 19

NOTES:

— Any information concerning the availability of the standards can be obtained from the European standardization organizations.

— The Commission ensures the updating of this list (').

(') OJ No C 44, 19. 2. 1992.
OJ No C 90, 10. 4. 1992.
OJ No C 49, 17. 2. 1994.

# Commission communication in the framework of Council Directive No 89/336/EEC of 3 May 1989 (1), as amended by Council Directive No 92/31/EEC (2), in relation to electromagnetic compatibility

(94/C 49/03)

(Text with EEA relevance)

*Publication of titles and references of harmonized standards under the Directive*

| OEN (*) | Reference | Title of the harmonized standard | Year of ratification |
|---|---|---|---|
| CLC | AM1 TO EN 50065-1 | Signalling on low-voltage electrical installations in the frequency range 3 kHz to 148,5 kHz<br>Part 1: General requirements, frequency bands and electromagnetic disturbances | 1992 |
| CLC | 50081-2 | Electromagnetic compatibility — Generic emission standard<br>Part 2: Industrial environment | 1993 |
| CLC | AM11 TO EN 55013 | CISPR 13 (1975) ed 1 + Amdt 1 (1992)<br>Limits and methods of measurement of radio disturbance characteristics of broadcast receivers and associated equipment | 1993 |
| CLC | 55014 | CISPR 14 (1993) ed 3<br>Limits and methods of measurement of radio disturbance characteristics of electrical motor-operated and thermal appliances for household and similar purposes, electric tools and similar electric apparatus | 1993 |
| CLC | 55015 | CISPR 15 (1992) ed 4<br>Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment | 1992 |
| CLC | 55020 | CISPR 20 (1990) ed 2 + Amdt 1 (1990)<br>Immunity of broadcast receivers and associated equipment | 1993 |
| CLC | AM1 TO EN 60269-1 | IEC 269-1 (1986) ed 2 + Amdt 1 (1911)<br>Low-voltage fuses<br>Part 1: General requirements | 1993 |
| CLC | 60282-1 | IEC 282-1 (1985) ed 3 + Amdt 1 (1988)<br>High-voltage fuses<br>Part 1: Current-limiting fuses | 1993 |
| CLC | 60687 | IEC 687 (1992) ed 2<br>Alternating current static watt-hour meters for active energy (classes 0,2 S and 0,5 S) | 1991 |
| CLC | AM1 TO EN 60945 | IEC 945 (1988) ed 1 + Amdt 1 (1992)<br>Marine navigational equipment — General requirements — Methods of testing and required test results | 1993 |

(1) OJ No L 139, 23. 5. 1989.
(2) OJ No L 126, 12. 5. 1992.

| OEN (1) | Reference | Title of the harmonized standard | Year of ratification |
|---|---|---|---|
| CLC | 61036 | IEC 1036 (1990) ed 1<br>Alternating current static watt-hour meters for active energy (classes 1 and 2) | 1992 |
| CLC | 61037 | IEC 1037 (1990) ed 1<br>Electronic ripple control receivers for tariff and load control | 1992 |
| CLC | 61038 | IEC 1038 (1990) ed 1<br>Time switches for tariff and load control | 1992 |

(1) OEN: European standardization bodies (CEN, CENELEC, ETSI)
CLC: CENELEC, Rue de Stassart 35, B-1050 Brussels; tel. (32 2) 519 68 71, fax (32 2) 519 69 19.

NOTES:

— Any information concerning the availability of the standards can be obtained from the European standardization organizations.

— The Commission ensures the updating of this list (1).

(1) OJ No C 44, 19. 2. 1992.
OJ No C 90, 10. 4. 1992.

# COMMISSION COMMUNICATION IN THE FRAMEWORK OF THE IMPLEMENTATION OF COUNCIL DIRECTIVE No 89/336/EEC OF 3 MAY 1989, IN RELATION TO ELECTROMAGNETIC COMPATIBILITY (1)

(92/C 90/02)

**Publication of titles and references of harmonized standards under the Directive**

| OEN (2) | Reference | Title of the Harmonized Standard | Year of ratification |
|---|---|---|---|
| CLC | EN 50081-1 | Electromagnetic compatibility generic emission standard — part 1: residential, commercial and light industry | 1991 |
| CLC | EN 50082-1 | Electromagnetic compatibility generic immunity standard — part 1: residential, commercial and light industry | 1991 |

(2) OEN: European standardization bodies:
CEN, rue de Stassart 36, B-1050 Brussels, tel. (322) 519 68 11, fax (322) 519 68 19;
CENELEC (CLC), rue de Stassart 35, B-1050 Brussels, tel. (322) 519 68 71, fax (322) 519 69 19;
ETSI, BP 152, F-06561 Valbonne Cedex, tel. (33) 92 94 42 12, fax (33) 93 65 47 16.

NOTES:

Any information concerning the availability of the standards can be obtained from the European standardization organizations.

The Commission ensures the updating of this list (3).

(1) OJ No L 139, 23. 5. 1989.
(3) OJ No C 44, 19. 2. 1992, p. 12.

# COMMISSION COMMUNICATION IN THE FRAMEWORK OF THE IMPLEMENTATION OF THE 'NEW APPROACH' DIRECTIVES

(92/C 44/10)

## Publication of titles and references of European harmonized standards complying with the essential requirements

### 'ELECTROMAGNETIC COMPATIBILITY'

### Council Directive 89/336/EEC of 3 May 1989 (1)

| Under OEN (2) reference No | Title of the harmonized standard | Year of ratification |
|---|---|---|
| CENELEC | | |
| EN 50065-1 | Signalling on low-voltage electrical installations in the frequency range 3 to 148,5 kHz<br>Part 1: General requirements, frequency bands and electromagnetic disturbances | 1990 |
| EN 55011 | CISPR 11 (1990) ed 2<br>Limits and methods of measurement of radio disturbance characteristics of industrial, scientific and medical (ISM) radio-frequency equipment | 1989 |
| EN 55013 | CISPR 13 (1975) ed 1 + Amdt 1 (1983)<br>Limits and methods of measurement of radio disturbance characteristics of broadcast receivers and associated equipment | 1988 |
| EN 55014 | CISPR 14 (1985) ed 2<br>Limits and methods of measurement of radio interference characteristics of household electrical appliances, portable tools and similar electrical apparatus | 1986 |
| EN 55015 | CISPR 15 (1985) ed 3<br>Limits and methods of measurement of radio interference characteristics of flurorescent lamps and luminaires | 1986 |
| EN 55020 | Immunity from radio interference of broadcast receivers and associated equipment | 1987 |
| EN 55022 | CISPR (1985) ed 1<br>Limits and methods of measurement of radio interference characteristics of information technology equipment | 1986 |
| EN 60555-2 | IEC 555-2 (1982) ed 1 + Amdt 1 (1985)<br>Disturbances in supply systems caused by household appliances and similar electrical equipment<br>Part 2: Harmonics | 1986 |
| EN 60555-3 | IEC 555-3 (1982) ed 1<br>Disturbances in supply systems caused by household appliances and similar electrical equipment<br>Part 3: Voltage fluctuations | 1986 |

(1) OJ No L 139, 23. 5. 1989.
(2) OEN: European standardization bodies, CEN — CENELEC, ETSI.

# ANNEX 8

## Standardisation Programme for the development of harmonised standards

**Standardisation Programme**

## I. RESIDENTIAL, COMMERCIAL AND LV PROFESSIONAL FAMILY

Audio, video, audiovisual equipment for domestic entertainment
Broadcast satellite receivers
Audio, video, audiovisual lighting control equipment for professional use
Domestic appliances and similar household appliances (including toys)
Lighting
Alarm systems (without mains connection)
Mains signalling in low voltage
Building automation (this concerns also HBES)
Small power electronics (power supplies)
Lifts
LV switchgear and controlgear
Residual current devices
Electronic switches

## II. INDUSTRIAL FAMILY

Industrial measurement and control equipment
Machine tools (electronic control of manufacturing machinery robots)
Power electronics (convertors, rectifiers, etc.)
Industrial electroheat equipement
Electrical welding
Industrial transport equipment
Power capacitors
Related filters
LV switchgear and controlgear
Rotating machines
LV fuses

## III. TRAFFIC, TRANSPORTATION

Electric traction equipment
Motorway communication equipment and traffic control equipment
Electrical installations of ships
Navigational instrumentation

## IV. UTILITIES

HV switchgear and controlgear
Protection equipment
Telecontrol, teleprotection and associated telecommunication for utilities
Measuring, metering and load control apparatus
HV fuses

## V. SPECIAL

Electrical and electronical test and measuring instruments
CATV cable distribution equipment

# ANNEX 9

## Useful Addresses

| NAME AND ADDRESS | TEL | FAX |
|---|---|---|
| **COTREL**<br>**c/o BTDA**<br>Westminster Tower<br>3 Albert Embankment<br>GB - LONDON SE1 7SL | 44.171.793.30.42 | 44.171.582.80.20 |
| **EACEM**<br>Avenue Louise, 140/Bte 6<br>B - 1050 BRUXELLES | 32.2.644.26.81<br>32.2.644.04.66 | 32.2.644.44.09 |
| **ECTEL**<br>**c/o F.E.I.**<br>Russell Square House - 2nd<br>10-12 Russell Square<br>UK - LONDON WC1B 5EE | 44.171.331.20.20 | 44.171.331.20.42 |
| **EEA**<br>Av. L. Gribaumont, 1 - bte 5<br>B - 1050 BRUXELLES | 32.2.772.10.93 | 32.2.771.86.61 |
| **ELC**<br>Av. E. Mounier, 83 - bte 1<br>B - 1200 BRUXELLES | 32.2.772.83.77 | 32.2.770.53.86 |
| **EUROBIT**<br>**c/o VDMA**<br>Lyoner Strasse 18<br>D - 60528 FRANKFURT/MAIN | 49.69.660.35.30 | 49.69.66.03.15.10 |
| **EUROCAE**<br>17, Rue Hamelin<br>F - 75783 PARIS CEDEX 16 | 33.1.45.05.71.88 | 33.1.45.05.72.30<br>33.1.45.53.03.93 |
| **EUROPACABLE**<br>Rue du Luxembourg, 19-21/ bte 3-4<br>B - 1040 BRUXELLES | 32.2.513.06.12 | 32.2.502.21.69 |

| NAME AND ADDRESS | TEL | FAX |
|---|---|---|
| **EUROPEAN COMMISSION**<br>**DIRECTORATE-GENERAL III**<br>**INDUSTRIAL AFFAIRS II**<br>**Capital goods industries**<br>**Mechanical Engineering and**<br>**Electrical Engineering**<br>Rue de la Loi, 200<br>B - 1049 BRUXELLES | 32.2.295.86.86 | 32.2.296.62.73 |
| **EFTA SECRETARIAT**<br>Rue de Trèves, 74<br>B - 1040 BRUXELLES | 32.2.286.17.11 | 32.2.286.17.50 |
| **CENELEC**<br>Rue de Stassart, 35<br>B - 1050 BRUXELLES | 32.2.519.68.60 | 32.2.519.69.19 |
| **ETSI SECRETARIAT**<br>Route des Lucioles<br>F - 06921 SOPHIA-ANTIPOLIS | 33.92.94.42.00 | 33.93.65.47.16 |
| **CEN**<br>Rue de Stassart, 36<br>B - 1050 BRUXELLES | 32.2.519.68.11 | 32.2.519.68.19 |
| **ORGALIME**<br>Rue de Stassart, 99<br>B - 1050 BRUXELLES | 32.2.511.34.84 | 32.2.512.99.70 |
| **CAPIEL**<br>**c/o ZVEI**<br>Postfach 70 12 61<br>D - 60591 FRANKFURT/MAIN | 49.69.630.23.85 | 49.69.630.23.86 |
| **CECAPI**<br>**c/o ANIE - Groupe 8**<br>Via Alessandre Algardi 2<br>I - 20148 MILANO | 39.2.326.42.54 | 39.2.326.42.12 |
| **CECIMO**<br>Avenue Louise, 66<br>B - 1050 BRUXELLES | 32.2.502.70.90 | 32.2.502.60.82 |
| **CECED**<br>**c/o ANIE - Groupe 8**<br>Via Alessandre Algardi 2<br>I - 20148 MILANO | 39.2.326.42.99 | 39.2.326.42.12 |