

UK Regulations Transposing Directive 2004/108/EC

Guidance on some specific issues of Interpretation

This guide is intended to assist manufacturers and suppliers of electronic and electrical equipment to understand the effect of the Regulations. It is not an authoritative interpretation of the Regulations, which is a matter for the Courts.

The guide seeks to explain the requirements of the Regulations in general terms and does not attempt to address detailed issues. You should refer to the Regulations themselves for a full statement of the requirements. A copy of the EMC Regulations can be downloaded using the following link: http://www.opsi.gov.uk/si/si2006/uksi_20063418_en.pdf

Essential requirements

State of the art

Regulation 4(2) requires that equipment be designed and manufactured having regard to the state of the art so as to meet the essential requirements. State of the art is defined in ISO/IEC Guide 2 (eighth edition 2004) as the “developed stage of technical capability at a given time as regards products, processes and services, based on the relevant consolidated findings of science, technology and experience”.

In the context of this regulation it may be considered to have two aspects: the performance requirements, and the design and construction technique. It may not be necessary to employ the highest degree of design and construction technique in order to fulfil the performance requirements; the regulation requires only that regard is taken of them. The manufacturer may choose any design and manufacturing process that results in the equipment meeting the essential requirements.

In respect of the essential requirements, harmonised standards reflect the generally acknowledged state of the art as regards electromagnetic compatibility performance requirements in the European Union. Where harmonised standards are not employed in full, the manufacturer should have regard to the state of the art in terms of the services to be protected, and the electromagnetic disturbances to which his apparatus may be subjected.

Good engineering practices

Regulation 5 requires a fixed installation to be installed applying good engineering practices. A number of definitions of this term may be found. Essentially, it is the expression of sound technical custom, based on accumulated understanding and experience.

In employing such practices in a fixed installation, it is implicit that to comply with the essential requirements for electromagnetic compatibility, good **EMC** engineering practices have to be employed, which are suitable for that site. The practices have to be sufficient to ensure that the fixed installation meets the essential requirements set out in Regulation 4. It is not possible to define these more precisely, as they will vary according to the technologies employed in the constituent parts of the fixed installation, and its surroundings, and may include mitigation measures required by the information provided for incorporation of those parts.

The fact that better engineering practices could have been employed would not invalidate sufficiently good engineering practices that allow the requirements of Regulation 4 to be met.

Apparatus for which compliance is not ensured in residential areas

Residential areas may be considered to be domestic environments and locations immediately adjacent. In such locations broadcast receivers can be expected to be in use in close proximity to other equipment. A “clear indication” would include an indication in the user instructions, and where appropriate on the packaging, of suitable locations in which the equipment may be used. If these do not include residential areas, a suitable warning would be that use in residential areas may cause interference, and such use should be avoided unless special measures are taken by the user to restrict emissions to a level that allows the reception of broadcast emissions.

Fixed Installations

Definition of a fixed installation

Regulation 3(1) contains a definition of “fixed installation” which includes the requirement “intended to be used permanently”. There are two important elements to this: intent and duration. The requirement would be fulfilled if it were intended that the constituent parts were to be used in the defined location for their expected lifetime(s).

If constituent parts are expected to be moved during their expected lifetime to another location, to be taken into service at that location, the requirement would not be fulfilled. It is recognised that modifications will be made to fixed installations throughout their operational life, and such modifications would not invalidate the original intent, although such acts would be subject to the relevant provisions of the Regulations, in particular, Regulation 35.

The Regulations do not define the size or extent of a fixed installation. It is for the responsible person to define the extent of the fixed installation for which he is responsible, but he cannot exclude any part that is within his control, unless it forms part of another fixed installation.

Responsible person for a fixed installation

There must always be a person with responsibility for ensuring that, when used, the fixed installation complies with the essential requirements. That person is known as the “responsible person in relation to a fixed installation”. Regulation 3(1) contains a definition of this responsible person.

Such a person must hold a position of responsibility sufficient to control the configuration of the fixed installation, and to be satisfied that the documentation is and continues to be sufficient to demonstrate that good engineering practices have been followed. The responsible person does not have to be an EMC expert, and may seek appropriate advice in fulfilling their obligations. However, they cannot delegate their responsibility.

There will be many types, sizes and complexities of fixed installation. The person who is responsible may be different according to circumstances. For example in some cases it could be the owner of a site, in others the operator of the installation, in others the maintainer of the installation, etc. In some cases control may be determined contractually between the parties concerned.

It will be necessary for operators of fixed installations to identify the responsible person before the installation is taken into service, since they are responsible for holding and providing the documentation demonstrating the application of good engineering practices as required by regulations 5(3) and 36 respectively.

“Certain Apparatus” for a given fixed installation

Regulation 34 sets out the requirements for “certain apparatus” for a given fixed installation.

“certain apparatus” means apparatus which is—

- (a) intended for incorporation into a given fixed installation; and
- (b) is otherwise not commercially available.

The provisions for such apparatus differ from those in Regulation 15, which sets out the requirements generally applicable for placing apparatus on the market. It is expected that most apparatus incorporated within fixed installations will not fall within the special “certain apparatus” category because the two conditions given above are not met. The basis for this difference is that it is not necessary to carry out a conformity assessment, for “certain apparatus” meeting the above conditions that is intended solely for a specific fixed installation, in isolation from that fixed installation.

In order that the requirements of Regulation 34(1) may be fulfilled, the manufacturer of the apparatus or his authorised representative must understand the nature of the installation in sufficient detail, to be able to determine the precautions to be taken for incorporation to avoid compromising the conformity of that installation.

The term “given fixed installation” should therefore be taken to mean a specific location of a fixed installation, rather than a type of fixed installation, subject to the qualification of the following paragraph.

Such apparatus may be incorporated into more than one identical fixed installation. In such cases, for the manufacturer of the apparatus to be satisfied that Regulation 34 applies in place of Regulation 15, although the installations need not be identical in every detail, they must be sufficiently alike in their electromagnetic compatibility characteristics, and the interfaces with the apparatus, that identical apparatus and precautions will suffice in order not to compromise the conformity of each installation.

If these conditions are not fulfilled, each installation must be treated as a separate given fixed installation, and the apparatus designs and/or precautions must be specific to each site.

It is not the responsibility of the manufacture (or his authorised representative) to ensure that the fixed installation has an appropriate responsible person. He has only to fulfil his own responsibilities in respect of the apparatus that he supplies.

Electromagnetic compatibility characteristics of a fixed installation

Regulation 34(1)(i) requires the manufacturer (or his authorised representative) of apparatus intended solely for a given fixed installation to identify and document the electromagnetic compatibility characteristics of the installation. It will be necessary for the manufacturer to understand the electromagnetic compatibility characteristics pertaining to such an installation in sufficient detail to enable him to design or adapt the apparatus to be suitable for incorporation, and to identify any specific precautions that must be taken during that process.

The purpose of identifying the electromagnetic compatibility characteristics of the installation is therefore to provide the basis for ensuring that that the conformity of the fixed installation is not compromised, and to provide evidence in the case of a challenge.

The level of detail required will depend on the complexity of the apparatus, the intended fixed installation, and the electromagnetic environment. For straightforward situations, the descriptions of the environment as set out in the harmonised generic or product standards may be sufficient. In more complex cases, the specific electromagnetic characteristics of the other parts of the installation and/or the environment may be required. The manufacturer of the apparatus (or his authorised representative) is responsible for this judgement.

In fulfilling his responsibilities, the manufacturer (or his authorised representative) may use any appropriate source of information, including the person responsible for the fixed installation, although it should be noted that the Regulations do not place any responsibility on the latter to supply such information. However, it remains the manufacturer's (or his authorised representative's) responsibility to obtain the necessary information because only he knows the characteristics of his apparatus, and he has to provide the information required by the Directive in order to benefit from the exemption from conformity assessment. If insufficient information is available on the EMC characteristics of the fixed installation, a manufacturer has the option of following the conformity assessment procedures for placing the apparatus on the market.

Appropriate documentation for fixed installations

Regulation 36 requires the responsible person for the fixed installation to have available documentation demonstrating compliance of the fixed installation with the essential requirements. The level of detail that is necessary will vary according to the complexity of the fixed installation. It should be sufficient to enable an enforcement authority to determine whether good practices have been followed.

Where apparatus that is compliant with all the appropriate provisions of the Regulations for placing on the market has been installed in an appropriate environment, in accordance with the instructions and precautions for installation and use, their retention may well suffice. Where interactions between constituent parts are possible, and particularly where apparatus that has not been demonstrated as compliant in its own right has been incorporated, more information will however be required, although much of this may have been required of and provided by those responsible for the construction of the installation as part of the contract for the installation.

The documentation will need to be updated as necessary, to take account of changes to the installation that could affect its EMC characteristics, over its operational life.

Compliance of fixed installations

In the case of indications of non-compliance of a fixed installation, for example a report of interference being caused, in the first instance it is expected that an enforcement authority will seek documentary evidence of the application of good engineering practices. Regulation 39 allows for further investigations if necessary.

An investigation into an alleged non-conformity of a fixed installation may require the supply of documentation that relates to confidential details of performance or constructional details of apparatus. In such cases, it may be appropriate for the enforcement authority to obtain such evidence directly from the manufacturer of the apparatus or his authorised representative.

Where a non-compliance is as a result of interaction between two or more fixed installations, that are otherwise compliant, or the disturbances originate from a shared resource, the authorities may require the responsible persons to co-operate to remedy the non-compliance.

In some cases, a fixed installation may be located physically within the boundary of another fixed installation. In such circumstances, it is possible that the fixed installations will have different responsible persons, each employed by a different organisation. There may, or may not, be a contractual arrangement between these organisations, and the installations may, or may not, be interconnected electrically, but this should not affect how the compliance of each fixed installation is considered.

The compliance of each fixed installation with the essential requirements of the Directive would be considered separately in the first instance. The responsible person for the larger fixed installation would not be responsible for the conformity of any smaller fixed installation within it unless it was agreed otherwise. However, each fixed installation will form part of the electromagnetic environment of the other, and this must be taken into account in addition to consideration of the surroundings in complying with regulation 35.

In the case of interference being caused, the source of which is traced to a source within the boundary of the larger fixed installation, the authorities may be expected to approach the responsible person for the larger fixed installation in the first instance, but the responsible person for any smaller fixed installation would also be expected to cooperate in the investigation. Each may be required to provide evidence of compliance of the fixed installations for which they are responsible. It is likely that only by further co-operation between the responsible persons will a solution be able to be found.

Transitional arrangements

The existing UK Regulations, SI 2005 No. 281, are revoked on 20 July 2007 as a consequence of the repeal of Directive 89/336/EEC on that date.

Apparatus

No new declarations of conformity to 89/336/EEC may be issued from that date. Apparatus that has a valid declaration of conformity issued before 20 July 2007 may continue to be manufactured and placed on the market before 20 July 2009 and may subsequently be put into service at any time.

Any change to such apparatus within this two-year transitional period that requires a new declaration of conformity will require compliance with the new Regulations, SI 2006 No. 3418, and the apparatus must have a declaration of conformity to the new EMC Directive, 2004/108/EC. This requirement also applies to apparatus for which a referenced harmonised standard has reached its date of cessation of presumption of conformity. A new declaration of conformity referencing the new standard will consequently be required.

All apparatus placed on the market from 20 July 2009 must have a declaration of conformity to 2004/108/EC.

Notified Bodies

The Regulations in respect of Notified Bodies come into force on 20 January 2007 in order to allow appointment of these bodies prior to 20 July 2007. However Notified Bodies may not issue any statement in accordance with Regulation 30 or Regulation 33 before 20 July 2007.

Fixed installations

From 20 July 2007 the new Regulations will apply in respect of new fixed installations when they are put into service.

They will also apply to a fixed installation that was put into service before 20 July 2007 if it is modified after that date in a way that may affect its electromagnetic compatibility. The obligation to document good engineering practice relating to such installations will be limited to consideration of subsequent changes or additions that could affect their electromagnetic compatibility characteristics.

Other Issues

Mobile installations

The definition of apparatus in Regulation 3 includes mobile installations which are defined, as in the Directive, as a combination of apparatus and, where applicable, other devices, intended to be moved and operated in a range of locations. This definition does not require the combination of apparatus to have an identical configuration in each location.

Installations intended to be taken down and reassembled at different locations cannot be considered to be fixed installations, since the definition of fixed installation includes the words “used permanently at a predefined location”, nor can they be considered to be apparatus for a given fixed installation.

Such installations are mobile installations, and the Regulations’ provisions for apparatus apply, in particular Regulation 15 for placing on the market. Those using the apparatus at each location must meet Regulation 16, requirements for putting into service

Military equipment

Article 296 of the Treaty establishing the European Community provides a derogation under which European states can protect their essential security interests connected with the production of military equipment designed for use as arms, munitions or war material. By invoking article 296, European law obligations in a directive (for example) which would otherwise bite in respect of such military equipment may be derogated from.

If article 296 is invoked in a particular case, with the effect of derogating from a European law obligation (e.g. Directive 2004/108/EC), there will as a consequence be no corresponding domestic law obligation to comply with under the EMC Regulations (for example). The derogation covers equipment capable of other applications, but does not extend to equipment which is designed for military use and other applications (often called dual-use equipment).