

If a product has the CE marking on it, it guarantees the free passage of those goods throughout the member states of the European community. The term CE itself comes from the French phrase *Conformité Européenne* that means literally European Conformity. A CE mark on a product means that the product has satisfied the directives (tests) that apply to it. As far as electronic goods go it is the EMC Directive. EMC meaning electromagnetic compatibility.

This directive applies to all goods placed on the EU market and products taken into service.

It applies to the first time a product is made available for distribution or used in the European market. The product can be manufactured in the EU for release into the European market or it can be produced outside the EU intended for release into the

WHAT MAKES AN ELECTRONIC OR ELECTRICAL PRODUCT SAFE FOR USE IN EUROPE? GARETH BRADLEY REPORTS ON WHAT IT TAKES TO BRING PRODUCTS UP TO THE STANDARD OF BEARING THE CE MARK. **PART 1**

European market. In either case the product needs to comply with the directive.

For equipment that is taken into service, it means that a manufacturer who imports or manufactures a product for his or her own use which is not commercially available.

This could be a custom made one-off piece of equipment, but it still needs to comply just the same.

It is the responsibility of the manufacturer to ensure that their products comply with the directive. A manufacturer can ensure compliance in two ways.

1. The simplest way a manufacturer can ensure compliance is through self-

certification. This can be done through sending the product to be tested to an EMC test house or by in-house testing if the manufacturer has such a facility and tested to the relevant standards for the product in question. Due to the potentially high cost of having such a facility many small to medium enterprises cannot afford the outlay for such a test facility and so they tend to send to a test house.

2. The alternative is to produce what is called a technical construction file. This file needs to be kept at hand for inspection by the bodies responsible for policing the directive. The technical construction file should contain design procedures aimed at reducing potential electromagnetic interference. It should also include any test results that are carried out by a competent body. A competent body is a test house that has been accredited by the United Kingdom Accreditation Service (UKAS). This method

of compliance came into force in January 1996 and should be used if there is no way of testing by the first method.

Once compliance has been shown then a declaration of conformity can be issued. This must contain a description of the product and reference to route of conformity and tests carried out. It's a signature to bind the manufacturer. Once this has been done then the CE mark can be placed on the product, placed in the operating instructions, on the guarantee certificate or on the packaging.

5. Failure to assist an enforcement officer (obstruction).
6. Anyone pretending to be an enforcement officer.
7. Failure to retain full documentation.

The penalties for these offences are.

For offences 2,3 and 6 they carry, on conviction, an imprisonment for up to 3 months and/or a fine up to a level 5 fine of £5000.

For offences 1,4,5 and 7 they carry a fine

There is the defence of due diligence. If a manufacturer can show that he has taken all necessary steps to obtain compliance and can show that he could not do any more then this is defence of due diligence and they may not be convicted.

It is left to each member state of the EU to police the directive. The level to which this is done can vary from country to country in the EU. The trading standards are responsible for policing the directive in the United Kingdom and the cost of this has to

MARKING

by Gareth Bradley

The enforcement of the EMC Directive is down to the enforcement authorities. They have powers to procure test purchases, powers for search, seizure of apparatus or documentation. They can issue prohibition and suspension notices. It is up to each member state of the EU to enforce the Directive.

In the United Kingdom the enforcement authorities are the weights and measures authorities but in practice the trading standards enforce the regulations. In Northern Ireland it is the Department of Economic Development.

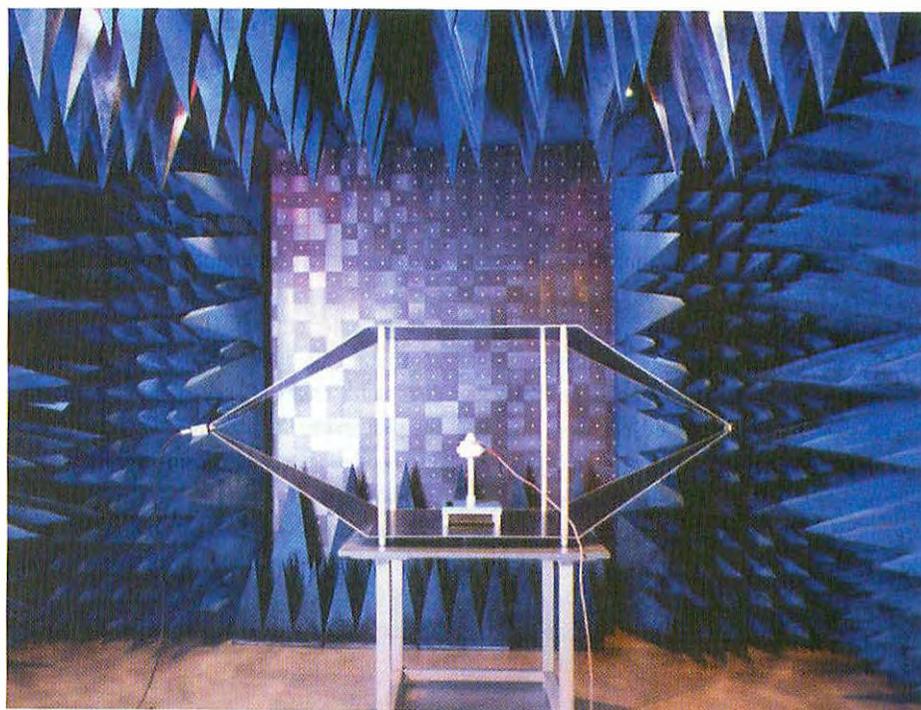
There are bodies for enforcement for specific apparatus.

The CAA is responsible for wireless telegraphy apparatus and the Director General of Electricity supply for electricity meters.

The directive requires that each member state takes appropriate steps to ensure that only goods that are compliant are either taken into service or placed on the EU market, therefore, there are measures like fines and penalties in place for breaches of the directive.

Breaches fall into these categories.

1. Knowingly supplying or taking into service relevant apparatus breaching the directive.
2. Contravention of a prohibition or suspension notice.
3. Provision of false or misleading information in the required documentation.
4. Knowingly affixing the CE marking or an inscription that may be confused with the CE marking, to non-compliant apparatus and or issuing a false declaration of conformity.



up to level 5, a fine of £5000.

Where someone is convicted of offences 1 or 4 then the court may decide to order that remedial action be made by the person committing the offence in order for the equipment to become compliant. This has to be done within a specific time period as decided by the court. This time period can be extended by the order of the court.

An enforcement authority can under the regulation call for the forfeiture of any equipment found to be in breach of the directive, a forfeit of some or all of the equipment in question. The courts will only grant a forfeiture order if it is satisfied that the equipment does not satisfy the protection requirements of the directive. Forfeited equipment will either be destroyed, disposed of for reconditioning or disposed of for scrap as directed by the court.

be taken out of the trading standards existing budget. It is therefore not heavily enforced. They are however obliged to investigate if they receive a complaint about a product that does not comply or is suspected not to comply. Some countries within the EU enforce the directive a lot more vigorously than in the United Kingdom. Germany, for example, brings quite a lot of cases to court every year.

As most manufacturers do not have necessary expertise and test facilities to produce the required documentation to support any claim that the manufacturer makes against any of his products. The responsibility to show compliance still falls on the manufacturer and they will most definitely incur costs in doing so.

Next Month: find out the difference between pre-compliance and compliance...