



Fire Industry Association

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THE “WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT” (WEEE) AND THE “RESTRICTION ON THE USE OF CERTAIN HAZARDOUS SUBSTANCES IN ELECTRICAL AND ELECTRONIC EQUIPMENT” (ROHS) DIRECTIVES

1. INTRODUCTION

The WEEE and ROHS Directives have recently been adopted by the European Parliament and will be enacted into the legislation of EU Member States by 13th August 2004. These two Directives will have significant impact on the electrical and electronic manufacturing industry and this Fact File has been prepared to inform members of the basic requirements of the Directives and to give guidance on where further information can be obtained.

As there is some flexibility in the way in which certain requirements of the Directives can be implemented, the Department of Trade and Industry is to publish a consultation document during Quarter one of 2003. This will give industry the opportunity to express their views on the UK proposals.

As the methods for implementation of the Directives becomes clearer, it is intended that this Fact File will be updated.

2. The ROHS Directive

This Directive completed the negotiation process when its text was endorsed by the European Parliament on 18th December 2002. It entered onto the European Union statute book on 13th February 2003, the day when it was published in the Official Journal of the European Communities (OJEC).

A copy of the text of the Directive can be downloaded from the DTI Website whose details are provided later in this Fact File. Brief extracts from the requirements of the Directive are provided in this Fact File.

Preamble

The introduction to the Directive explains that the various EU member states have different requirements relating to the use of hazardous substances in electrical and electronic equipment. This situation could lead to barriers to trade within the EU and therefore this Directive has been introduced to prevent that happening. The point is also made that this Directive will assist the EU in reducing the amount of hazardous substances needing to be managed during waste disposal.

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The hazardous substances referred to in the Directive are heavy metals and flame retardants. These are:

Mercury, Cadmium, Lead, Hexavalent Chromium, Polybrominated Biphenols (PBB) and Polybrominated Diphenyl Ethers (PBDE).

The restriction of the use of these substances is seen as “likely to enhance the possibilities and economic profitability of recycling of WEEE and decrease the negative health impact on workers in recycling plants.”

It is recognised that there may need to be exemptions if substitution of substances is not possible for technical or scientific reasons or if there is a negative environmental or health impact as a result of substitution. It is also recognised that there may be a continued need to use these substances where it is necessary to supply spare parts for existing electrical and electronic equipment.

Scope

The ROHS Directive applies to the products falling under the categories 1 – 7 and 10 of Annex 1A of the WEEE Directive, detailed later in this Fact File, and to electric light bulbs and luminaires in households. The omission of category 9 will, at least in the short term, be of some benefit to manufacturers of fire detection and alarm devices.

Prevention

The requirements of the Directive come into force on 1st July 2006 after which date new electrical and electronic equipment falling into the WEEE categories listed above cannot be put on the market if they contain the restricted substances.

The European Commission (EC) will be able to add to the list of restricted substance when scientific evidence can demonstrate that environmentally friendly alternatives are available.

Review

In 2005, the EC will review the Directive to establish if equipment presently excluded can be added. This will, in particular, include Categories 8 and 9 of Annex A1 of the WEEE Directive. The review will also consider restricting the use of additional hazardous substances.

Transposition

EU Member States have until 13th August 2004 to bring into force their laws, regulations and administrative provisions necessary to comply with the ROHS Directive.

Annex

The Annex of the ROHS Directive lists applications and related substances that are presently either wholly or partially exempted from the restrictions. These include:

- Mercury in various types of fluorescent lamps
- Mercury in some other types of lamps
- Lead in glass of cathode ray tubes, fluorescent tubes and electronic components
- Lead as an alloying element in steel
- Lead in high melting point solder
- Lead in solders for various IT, networking and piezoelectric component applications
- Cadmium plating
- Hexavalent chromium as an anticorrosion agent for carbon steel in absorption refrigerators

It is however stated that the EC will, as a matter of priority, review some of these applications, including the use of lead in solders associated with IT and networking to attempt to establish a time limit on their exemption.

3. The WEEE Directive

As with the ROHS Directive, the WEEE Directive completed the negotiation process when its text was endorsed by the European Parliament on 18th December 2002. It entered onto the European

Union statute book on 13th February 2003, the day when it was published in the Official Journal of the European Communities (OJEC).

A copy of the text of the Directive can be downloaded from the DTI Website whose details are provided later in this Fact File. Brief extracts from the requirements of the Directive are listed below.

Preamble

The WEEE Directive has been drafted in support of the EU environmental policy to protect and improve the quality of the environment and uses the principle that the polluter should pay. In the case of the electrical and electronic equipment this is considered as being the producer. To prevent pollution, the Directive requires various categories of electrical and electronic equipment to be collected separately from other waste to enable its subsequent special treatment. These categories are intended to encompass domestic and commercially used equipment that could end up in the municipal waste stream. In addition to pollution, the Directive also addresses the wasteful consumption of natural resources by the inclusion of a requirement to recycle raw materials and reuse equipment where possible.

The Directive recognises that if left to individual EU member states to determine how to implement the WEEE policy, there would be varying means that would be more severe in some states than in others. For this reason, the Directive lays down the categories of equipment and the means by which the producers are held responsible for meeting their commitments irrespective of the route to market used for their equipment.

The Directive requires that there should be no charge to users of domestic WEEE for its separate collection, treatment, recovery and disposal. The producer is to be responsible for the process and its funding. This principle is also extended to historical WEEE although the detailed funding arrangements are slightly different.

The Directive also addresses the need to mark electrical and electronic equipment to make it clear that separate collection will be necessary and to identify the types of materials used within the equipment. The Directive also addresses the measures necessary for the monitoring of the weight or number of items of future WEEE that are produced so that future recovery targets can be established.

Scope

The Directive applies to the products falling under the categories 1 –10 of Annex 1A of the WEEE Directive; these are detailed later in this Fact File. Annex 1B then provides further details. The Directive excludes equipment that is specifically intended for military purposes.

Note:

Category 9 appears to be the most relevant to the fire protection industry.

Product design

Member states are required to encourage the design and production of equipment that facilitates its reuse and recycling as WEEE. Member states also have to take steps to prevent equipment being produced in a manner that unjustifiably prevents reuse.

Separate collection

Member States have to adopt measures in order to minimise the disposal of WEEE as unsorted municipal waste and to achieve a high level of separate collection of WEEE (from domestic users). Member States also have to ensure that producers, or third parties acting on their behalf, provide for the collection of non domestic WEEE.

A target of 4 Kg of WEEE from private households per year per inhabitant has been set to be achieved by 31st December 2006 and a study undertaken on behalf of the DTI indicates that the UK is already exceeding this target No target has been set for non domestic WEEE.

Treatment

Producers, either directly or by means of third parties acting on their behalf, are required to establish facilities for the treatment of WEEE. The facilities have to use "best available treatment, recovery

and recycling techniques” and have to be the subject of inspection and/or licensing by the relevant competent authorities of Member States to ensure that their processes meet the fundamental requirements of the Directive.

Financing in respect of WEEE

In relation to WEEE from domestic users, producers have to take full responsibility for the financing of collection, treatment and environmentally sound disposal of all their products placed on the market after 13th August 2005. Producers have to have appropriate financial guarantees in place to cover the costs associated with the WEEE. Joint financing, by all existing producers, will be put in place to cover the cost of historical WEEE i.e. that which was originally purchased prior to 13th August 2005.

WEEE from non domestic users will, according to Article 9 of the Directive, be financed in a similar manner to domestic WEEE except that the cost of treating WEEE placed on the market before 13th August 2005 may be partly or wholly passed on to the user. It is however understood that member states are presently discussing with the EC their financing preferences and it may be that at least part of the financial burden will be transferred from the producer to the user of the WEEE.

Information and reporting

Member States will have the responsibility to put in place the means to identify quantities and categories of electrical and electronic equipment placed on their market and to then monitor the quantity that is being treated as WEEE. This information is then passed to the European Commission for the monitoring and achievement of targets.

Scientific and technical progress

The Directive can be amended as appropriate to take into account scientific and technical progress.

Enforcement and penalties

Member States are required to establish inspection and monitoring to enable the proper implementation of the Directive to be verified. They will also be responsible for determining penalties that are effective, proportionate and dissuasive that will be imposed when breaches of the requirements of the Directive occur.

Annex IA: Categories of electrical and electronic equipment covered by the WEEE Directive

1. Large household appliances
2. Small household appliances
3. IT and telecommunications equipment
4. Consumer equipment
5. Lighting equipment
6. Electrical and electronic tools (with the exception of large-scale stationary industrial tools)
7. Toys, leisure and sports equipment
8. Medical devices (with the exception of all implanted and infected products)
9. Monitoring and control instruments
10. Automatic dispensers

Annex IB: Category 9 equipment – Monitoring and control instruments

- Smoke detectors
- Heating regulators
- Thermostats
- Measuring, weighing or adjusting appliances for household or as laboratory equipment
- Other monitoring and control instruments used in industrial installations (e.g. in control panels)

Annex II: Selective treatment for materials and components of waste electrical and electronic equipment in accordance with Article 6(1) of the Directive

Note:

Details of the action to be taken with the components are given in the Annex. Only selected items that may be of particular interests to fire protection equipment manufacturers has been included below.

Minimum components to be removed from separately collected WEEE

- Components containing mercury
- Batteries
- Printed circuit boards of surface area greater than 10 cm²
- Plastic containing brominated flame retardants
- Cathode ray tubes
- Liquid crystal displays greater than 100 cm² and all those that are back lighted with gas discharge lamps
- External electrical cables
- Components containing radioactive substances
- Electrolytic capacitors containing substances of concern (height >25 mm, diameter >25 mm or proportionally similar volume)

4. Sources of further information

- For copies of the Directives and other associated information:
<http://www.dti.gov.uk/sustainability/weee/index.htm>
- Relevant information provided by the Electrical Research Association:
<http://www.era.co.uk/techserv/re4view/index.htm>
- Relevant information provided by European Commission:
http://www.europa.eu.int/comm/environment/index_en.htm

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DISCLAIMER

The information set out in this document is believed to be correct in the light of information currently available but it is not guaranteed and neither the Fire Industry Association nor its officers can accept any responsibility in respect of the contents or any events arising from use of the information contained within this document.