

## The Packaging (Essential Requirements) Regulations 2003 (Amended 2006)

### THE PACKAGING AND PACKAGING WASTE DIRECTIVE (94/62/EC) (amended by 2004/12/EC and 2005/20/EC)

#### Advice to Members

These regulations implement Articles 9 (with Annex II) and 11 of the Packaging and Packaging Waste Directive and Corrugated Sector, CPI members are being asked to provide assurances to customers that the corrugated packaging they supply will meet the legislation. The purpose of this Bulletin is to provide guidance to members on the response they make. This text has been agreed by the Local Authorities Coordinators of Regulatory Services (LACORS) and appears on the LACORS website:

<http://www.lacors.gov.uk/pages/trade/forbusiness.asp>

#### General Principles

The Regulations first came into force on 31st May 1998 and were replaced by the Regulation SI 2003 No. 1941 which was subsequently amended by SI 2004 No. 1188. The legislation places the obligation for ensuring that packaging meets the requirements on the packer/filler or importer of the packaging. However members are being asked to provide evidence of compliance with a number of aspects of the requirements and the legislation provides a "defence of due diligence" for packer/fillers or importers in respect of information provided by other parties.

In particular members will be in a position to supply information relating to "Heavy Metals" (Article 11 of the Directive), the recoverable nature of packaging (Annex II Paragraph 3 of the Directive) and to "noxious and other hazardous substances" (Annex II Paragraph 1, Indent 3 of the Directive). Recommendations for the form in which this information can be made available is given in the following sections.

#### Demonstrating Conformity

In accordance with Article 9 (2a) of the Directive, the harmonised European standards in the series EN 13427 to EN 13432 provide a presumption of compliance with the Essential Requirements of the Directive (Commission communication 2005/C 44/13). The approach to conformity recommended to members is based on these standards.

#### Concentration Levels of "Heavy" Metals in Packaging

The four named heavy metals are lead, cadmium, mercury and hexavalent chromium and the sum of their concentration levels in packaging is not allowed to exceed the following levels by the dates stated:

600ppm by June 30th 1998

250ppm by June 30th 1999

100ppm by June 30th 2001

The approach to demonstrating conformity recommended by CEN has been termed the "upstream approach" (contained in the CEN Report CR 13695-1). This means that if it can be demonstrated that none of the constituents of a packaging contains significant levels of heavy metals then there is no requirement to conduct testing on the packaging itself.

In adopting this principle to corrugated packaging it can be demonstrated that levels of heavy metals are already well below the 100ppm level. It has been established over a long period that paper and board, whether made from primary fibre or secondary fibre, contains only very low levels (for packaging grades less than a total of 20ppm) of heavy metals. The submission from CEPI (the Confederation of European Paper Industries) to CEN can be made available on request. Printing inks are sometimes singled out as a source of heavy metals. The European confederation for printing ink manufacturers, CEPE, has published an exclusion list for printing inks and related products

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which includes the four named heavy metals (A copy of this list can also be made available). Members should be able to provide an assurance that their ink suppliers are working in accordance with this exclusion list and that inks for packaging are formulated to comply with the legislation.

Where the agreed supply specification includes any special constituents introduced into the packaging, individual Corrugated Sector, CPI members should establish the absence of heavy metals in this specific regard. However once this has been done confirmation of conformance of the packaging to the requirements for levels of heavy metal can be made.

Periodic random testing of corrugated board packaging to support the statements made above is in operation in the UK, organised by the Corrugated Sector, CPI, and the results of this testing are published as Corrugated Sector, CPI Technical Bulletin No. 2. The most recent issue is 2003 and this is available at [www.paper.org.uk](http://www.paper.org.uk). These data confirm the position given in the CEPI paper.

### **Essential Requirements - Recoverable Nature of Packaging**

As packaging manufacturers members can make statements on the three elements of recovery; material recycling, energy recovery and composting, for packaging supplied. To satisfy the requirements only one of the three elements has to be fulfilled.

Material Recycling - the requirements to demonstrate that packaging is recyclable are elaborated in a checklist format in the CEN standard (EN 13430). Because of the high level of recycling of corrugated packaging already achieved, it is considered that corrugated products will meet these requirements. The one exception to this is products with special treatments which might make their recycling problematic and here special consideration will be necessary. For corrugated board using papers laminated with polyethylene film, it has become an established practice to class them as recyclable providing the film has a grammage of 10gsm or greater. Corrugated board impregnated with paraffin wax causes problems in the recycling process and is generally classed as non-recyclable. It is of course recoverable by incineration with energy recovery and thus satisfies the requirements.

Energy Recovery - The principle elaborated by the

CEN standard (EN 13431) is that for packaging to meet the requirements to be classed as recoverable by incineration with energy recovery, it shall be combustible and provide a net calorific gain. Packaging composed of over 50% organic material, which of course includes all corrugated packaging, can be classed as recoverable in the form of energy. Members can thus confirm that their products meet the requirements.

Composting - The CEN methodology (EN 13432) accepts that as a "natural" material, paper and board will be exempt from the principle testing requirement and will be classed as compostable. Thus it could be considered that all paper and board products (except of course those with special treatments which might render them non-compostable) are recoverable by composting. However these products are still required to satisfy criteria for disintegration and compost quality and, since the status of the test methodology for these aspects is still unclear, a formal statement of conformity is not being recommended at this stage.

### **Essential Requirements – Minimisation**

The other main requirement of the legislation (also termed prevention by source reduction) is that packaging, "shall be so manufactured that the packaging volume and weight be limited to the minimum adequate amount to maintain the necessary level of safety, hygiene and acceptance for the packed product and for the consumer".

This is seen as an aspect that in principle only the packer/filler can fully assess. This is because almost invariably a complete packaging system will consist of a number of different packaging elements and the assessment of source reduction should apply to the system as a whole. For this reason members should not sign any "blanket" certification which states that their packaging meets all the requirements of the Essential Requirements legislation.

However, where members have been responsible for the design of the complete packaging system, it might appear that they should accept responsibility for minimisation. Members may therefore include this aspect in their design procedures utilising the CEN methodology (EN 13428). Often minimisation will be demonstrated when source reduction exercises have been carried out and in the provision of results of

performance tests. In the absence of these, reference to the best practices of the industry, standard design practices such as the FEFCO/ASSCO code and members' own procedures may be used. When the packer/filler provides the specification for the packaging it will be normal practice to assume that the responsibility for demonstrating minimisation will not be delegated.

**“Noxious and other hazardous substances”**

The legislation requires that these substances in packaging shall be minimised in emissions, ash and leachate from incineration or landfill. The methodology in EN 13428 requires a demonstration that substances or preparations classified as dangerous to the environment and assigned the symbol “N” as required by Directive 67/548/EEC shall be minimised. This is to be determined by the use of relevant safety data sheets. Members will need to survey of the constituents and components of the corrugated board they supply in order to be able to certify compliance with this requirement. In most cases this will be through a simple demonstration of the absence of “N” marked substances. In a minority of cases, particularly involving the use of special constituents, the demonstration will be based on the absence of release of identified substances.

**Summary**

For a very large proportion of corrugated packaging manufactured and supplied by Corrugated Sector, CPI members, certification can be provided from existing data in respect of the Essential Requirements of the Packaging and Packaging Waste Directive (94/62/EC).

for the four Heavy Metals below the 100 ppm level for packaging to comply with the recoverability requirements in respect of material recycling and energy recovery  
for the minimisation of noxious and other hazardous substances,  
and, additionally where they have design responsibility for providing evidence of source reduction.