

Technical Guidance for the interpretation of Annex II

Selective treatment for materials and components of waste electrical and electronic equipment in accordance with Article 6(1)

Definition of removed: Substances preparations and components may be removed manually, mechanically or chemically, metallurgically with the result that hazardous substances, preparations and components are contained as an identifiable stream or identifiable part of a stream at the end of the treatment process.

Identifiable (part of a) stream means that the substances, preparations and components are made part of another stream or are a single item stream.

Entry	Toxic/hazardous/ dangerous element	Technical check	Remarks
- PCB containing capacitors	Polychlorinated biphenyls (PCB)	A single item stream	The stream is governed by Directive 96/59/EC on the disposal of PCB's and PCT's. Where incineration is used for disposal, Council Directive 94/67/EC of 16 December 1994 on the incineration of dangerous waste shall apply. Other methods of disposing of PCBs, used PCBs and/or equipment containing PCBs may be accepted provided they achieve equivalent environmental safety standards - compared with incineration - and fulfil the technical requirements referred to as best available techniques.
- Mercury containing components	Mercury (Hg)	A single item stream of: <ul style="list-style-type: none"> • Switches, and/or • Unbroken (compact or filamentous) fluorescent lamps, and/or • Other lamps containing mercury, and/or • Batteries 	The stream should be treated as hazardous waste in permitted treatment facilities. Mercury in ambient air is governed by Directive 2004/107/EC.

- Batteries	Mercury (Hg), Lead (Pb), Cadmium (Cd)	<ul style="list-style-type: none"> External batteries as a single item stream. Internal batteries either as a single item stream or as part of the copper and/or ferrous metal stream except lead acid batteries, which must be a single item stream. 	<ul style="list-style-type: none"> External batteries can be removed manually without the use of tools and without breaking the appliance. Internal batteries (mostly button cell type) can only be removed by using the aid of tools or breaking the appliance mechanically. <p>Once removed as a single item stream of batteries are governed by the Battery Directive 1991/157/EEC.</p>
- Printed circuit boards of mobile phones generally, and other devices > 10 cm ²	Lead (Pb), Chromium (Cr), Arsenic (As), Bromide (Br), Chlorine (Cl), Tin (Sb), Beryllium (Be)	A single item stream or as part of the copper/precious metal stream.	Both streams should preferably be treated in metallurgical treatment facilities (smelters). The emissions of these facilities are governed by Directive 84/360/EEC.
- Toner cartridges	Particulate carbon (C)	A single item stream	The stream should be treated as hazardous waste in permitted treatment facilities.
- Plastic containing bromated flame retardants	Bromide (Br)	As part of the plastic and/or metal streams	The streams may be treated either in mechanical, chemical, metallurgical or thermal processes. The emissions of the facilities are governed by the Directives 2000/76/EC and 84/360/EEC.
- Asbestos	Fibrous silicates (Si)	A single item stream	Asbestos is governed by the Directive 83/477/EEC i.e. concentration of asbestos fibres in the air at the place of work: <ul style="list-style-type: none"> < 0,25 fibre/cm³ and/or, < a cumulative dose of 15,00 fibre-days per cm³ over three months.
- Cathode Ray Tubes	Lead (Pb), Cadmium (Cd)	An identifiable stream containing CRT's	CRT's should preferably be treated in mechanical and/or metallurgical processes.
- Chlorofluorocarbons (CFC), hydrochlorofluorocarbons (HCFC), hydrofluorocarbons (HFC), hydrocarbons (HC)	CFC, HCFC, HFC, HC	Gases must be extracted. Identifiable streams containing one or more of these gases both from the cooling circuit as well as from the foam.	Regulation 2037/2000 governs the streams on substances that deplete the ozone layer.

- Gas discharge lamps	Mercury (Hg)	A single item stream	The stream should be treated as hazardous waste in certified treatment facilities. Mercury in ambient air is governed by Directive 2004/107/EC.
- Liquid crystal displays > 100 cm ²	?	No specific requirement	Only LCD's with backlights are of concern. This is already covered by the entry on mercury. Proposed to be taken out as an entry of Annex II.
- External cables	Polyvinyl Chloride (PVC), Cadmium (Cd), Lead (Pb), Phthalates	Identifiable part of a metal and/or plastic stream	A green paper on PVC was issued by the EC (COM (2000)469, 26 July 2000). The paper lists a range of measures, mandatory as well as voluntary, that are available to implement a horizontal Community strategy on PVC in order to address the problems that have been identified. Proposed to be taken out as an entry of Annex II
- Refractory ceramic fibres	Vitreous (silicate) fibres	A single item stream	It concerns man-made vitreous (silicate) fibres with random orientation with alkaline oxide and alkali earth oxide (Na ₂ O + K ₂ O + CaO + MgO + BaO) content less or equal to 18 % by weight). To be treated as asbestos.
- Radioactive substances	Ionising radiation	A single item stream	The stream is governed by Directive 96/29/Euratom. Smoke detectors may be removed notwithstanding the fact that ionising radiation is below the exemption thresholds of the above-mentioned Directive.
- Electrolyte capacitors with substances of concern (height > 25 mm, diameter > 25 mm or proportionately similar volume)	?	?	Known substance of concern is PCB that is covered in entry PCB containing capacitors. Proposed to be taken out as an entry of Annex II.

<p>- Fluorescent coating of CRT's have to be removed</p>	<p>Phosphors</p>	<p>Identifiable stream or part of a stream.</p>	<p>A waste from the use of phosphorous chemicals is listed in the European Waste Catalogue (Directive 2001/118/EC) as non-hazardous.</p> <p>This stream is therefore governed by Directive 75/442/EEC (as is true for all Annex II entries). The relevant article in this Directive is art. 4: <i>"Member States shall take the necessary measures to ensure that waste is disposed of without endangering human health and without harming the environment, and in particular: - without risk to water, air, soil and plants and animals, - without causing a nuisance through noise or odours,- without adversely affecting the countryside or places of special interest."</i></p> <p>Treatment in metalurgical and other thermal processes (like glass making) complies with the above mentioned requirement</p>
<p>- Taking into account environmental considerations and the desirability of reuse and recycling, paragraphs 1 and 2 (of Annex II) shall be applied in such a way that environmentally-sound reuse and recycling of components or whole appliances is not hindered.</p>			<p>- See below: Treatment and reuse of WEEE out of the EC</p>

Treatment and reuse of WEEE out of the European Community in line with article 3 and article 6 (5)

Article 3 - Definitions:

"(d) 'reuse' means any operation by which WEEE or components thereof are used for the same purpose for which they were conceived, including the continued use of the equipment or components thereof which are returned to collection points, distributors, recyclers or manufacturers".

In Article 6-5 Treatment:

"WEEE exported out of the Community in line with Council Regulation (EEC) No 259/93, Council Regulation (EC) No 1420/1999 of April 1999 establishing common rules and procedures to apply shipments to certain non-OECD countries of certain types of waste and Commission Regulation (EC) No 1547/1999 of 12 July 1999 determining the control procedures under Council Regulation (EEC) No 259/93 to apply shipments of certain types of waste to certain countries to which OECD Decision C (92) 39 final does not apply, shall only count for the fulfilment of obligations and targets of Article 7(1) and (2) of this Directive if the exporter can prove that the recovery, reuse and/or recycling operation took place under conditions that are equivalent to the requirement of this Directive."*

Guidance	Remarks
<p>Export of WEEE outside the Community for reuse or recycling purposes is governed by EC No 259/93 regulation and by the WEEE Directive. Exporters therefore have the same obligations as the treatment operators within the Community. Important obligations are:</p> <ul style="list-style-type: none"> • The use of best available treatment, recovery and recycling techniques, • Selective treatment in accordance with Annex II, • Permits in compliance with Articles 9 and 10 of Directive 75/442/EEC, • Compliance with the technical requirements set out in Annex III, • Compliance with Community legislation on safety and health requirements and specific Community waste management legislation, • Achievement of recovery targets set out in Article 7 of the WEEE Directive. <p>This applies for whole appliances, for appliances that have been treated partially (e.g. only the removal of the cable or the external battery), and for those parts, components and/or fractions that have been removed from appliances (e.g. batteries, circuit boards, plastic and metallic fractions).</p>	<p>The exporters have the same obligations as treatment operators in the Community with respect to the annual reporting of achieving the recycling and recovery quotes per product group as is listed in Annex I.</p>

<p>The WEEE Directive requires that exporters must give proof that reusable equipment, parts and components that are exported are used for the same purpose for which they were conceived including the continued use of the equipment or components thereof.</p>	<p>In the event that no proof can be delivered export should not be allowed.</p>
<p>The WEEE Directive requires Member States to ensure that inspection and monitoring enable the proper implementation of the Directive to be verified (Article 16).</p>	<p>To ensure compliance the following applies:</p> <ul style="list-style-type: none"> • No export of WEEE outside the community without a permit of the Member State (Council Regulation (EEC) No 259/93 of 1 February 1993). • No export of WEEE outside the Community without: <ul style="list-style-type: none"> ○ Financial guarantees (as is required for shipment of waste procedures) ○ Annual reporting on the important obligations mentioned in box 1. <p>With respect to the export of abandoned products (for exchange value or donation) the European Producers Responsibility legislation should be extended to the exporter and the exporter should give proof that when these products are being treated in line with the WEEE Directive.</p>

* members are OECD:

Australia, Austria, Belgium, Canada, Czech Republic, Denmark, European Community, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Spain, Sweden, Switzerland, Turkey, United Kingdom, and United States.