BS EN 50625-1:2014

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Collection, logistics & Treatment requirements for WEEE —

Part 1: General treatment requirements

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The UK participation in its preparation was entrusted to Technical Committee GEL/111, Electrotechnical environment committee.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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English version

Collection, logistics & Treatment requirements for WEEE - Part 1: General treatment requirements

Exigences de collecte, logistique et traitement pour les déchets d'équipements électriques et électroniques (DEEE) - Partie 1: Exigences générales du traitement

Sammlung, Logistik und Behandlung von Elektro- und Elektronik-Altgeräten (WEEE) - Teil 1: Allgemeine Anforderungen an die Behandlung

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Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

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Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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Contents

Table of contents 1
Foreword ..... - 4 -
Introduction ..... - 5 -
1 Scope ..... - 6 -
2 Normative references ..... - 6 -
3 Terms & definitions ..... - 6 -
3.2 backlight ..... - 6 -
3.3 batch ..... - 7 -
3.4 batch process ..... - 7 -
3.5 category ..... - 7 -
3.7 CRT (Cathode Ray Tube) ..... - 7 -
3.8 CRT equipment ..... - 7 -
3.9 collection ..... - 7 -
3.10 collection facility ..... - 7 -
3.11 de-pollution ..... - 7 -
3.12 disposal ..... - 7 -
3.13 end-of-waste ..... - 8 -
3.14 energy recovery ..... - 8 -
3.15 flat panel ..... - 8 -
3.16 flat panel display ..... - 8 -
3.17 flat panel display equipment ..... - 8 -
3.18 fraction ..... - 8 -
3.19 hazardous waste ..... - 8 -
3.20 lamp (electric) ..... - 8 -
3.21 lamp, gas discharge ..... - 8 -
3.22 logistics facility ..... - 9 -
3.23 material recovery ..... - 9 -
3.24 national competent authority ..... - 9 -
3.25 operator ..... - 9 -
3.26 photovoltaic panel (PV panel) ..... - 9 -
3.27 preparing for re-use ..... - 9 -
3.28 recovery ..... - 9 -
3.29 recycling ..... - 9 -
3.30 removal ..... - 9 -
3.31 re-use ..... - 10 -
3.32 storage ..... - 10 -
3.33 temperature exchange equipment ..... - 10 -
3.34 treatment ..... - 10 -
3.35 treatment facility ..... - 10 -
3.36 treatment operator ..... - 10 -
3.37 volatile fluorocarbon (VFC) ..... - 10 -
3.38 volatile hydrocarbon (VHC) ..... - 10 -
3.39 waste ..... - 11 -
3.40 WEEE (Waste Electrical and Electronic Equipment) ..... - 11 -
4 Administrative and organisational requirements ..... - 11 -
4.1 Management principles ..... - 11 -
4.2 Technical and infrastructural pre-conditions ..... - 11 -
4.3 Training ..... - 12 -
4.4 Monitoring ..... - 12 -
4.5 Shipments ..... - 13 -
5 Technical requirements ..... - 13 -
5.1 General ..... - 13 -
5.2 Receiving of WEEE at treatment facility ..... - 14 -

AVA Documents
Document Sharing Hub

Full document details: BS EN 50625-1:2014

5.3 Handling of WEEE ... - 14 -
5.4 Storage of WEEE prior to treatment ... - 14 -
5.5 De-pollution ... - 15 -
5.6 De-pollution monitoring ... - 15 -
5.7 Treatment of non de-polluted WEEE and fractions ... - 16 -
5.8 Storage of fractions ... - 16 -
5.9 Recycling and recovery targets ... - 16 -
5.10 Recovery and disposal of fractions ... - 17 -
6 Documentation ... - 17 -
Annex A (Normative) De-pollution ... - 19 -
A.1 Introduction ... - 19 -
A.2 Capacitors ... - 19 -
A.3 Printed circuit boards ... - 20 -
A.4 Gas discharge lamps and components containing mercury ... - 20 -
A.5 Batteries and accumulators ... - 20 -
A.6 Plastics ... - 20 -
A.6.1 Introduction and flow diagram ... - 20 -
A.6.2 Plastics fractions without brominated flame retardants (BFRs) ... - 21 -
A.7 Volatile fluorocarbons and volatile hydrocarbons ... - 21 -
A.8 Asbestos ... - 22 -
A.9 Components containing radioactive substances ... - 22 -
Annex B (Normative) De-pollution monitoring ... - 23 -
B.1 Introduction ... - 23 -
B.2 Capacitors, batteries ... - 23 -
B.3 Analysis of fractions ... - 23 -
B.4 Plastics ... - 24 -
Annex C (Normative) Determination of recycling and recovery rates ... - 25 -
C.1 Introduction ... - 25 -
C.2 Principles ... - 25 -
C.3 Calculation ... - 26 -
C.4 Documentation ... - 27 -
C.5 Classification of final use of fractions ... - 28 -
Annex D (Normative) Requirements concerning processing of a batch ... - 29 -
D.1 Introduction ... - 29 -
D.2 Input material ... - 29 -
D.3 Processing ... - 31 -
D.4 Output fractions ... - 31 -
D.5 Documentation and validation ... - 32 -
Annex E (Void) ... - 33 -
Annex F (Informative) Materials and components of WEEE requiring selective treatment ... - 34 -
Annex G (Informative) Documentation for downstream monitoring and establishment of recycling and recovery rates ... - 36 -
G.1 Information requirements ... - 36 -
Annex ZZ (Informative) Coverage of Requirements of Commission Directive (EC) 2012/19/EU ... - 37 -
Bibliography ... - 38 -

Documents
Document Sharing Hub

Full document details: BS EN 50625-1:2014

Foreword

This document (EN 50625-1:2014) has been prepared by CLC/TC 111X "Environmental aspects for electrical and electronic products and systems".

The following dates are fixed:

- latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2015-01-27
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2017-01-27

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

This standard is based on a set of requirements prepared by the WEEE Forum aisbl and was adopted by CENELEC after public enquiry and formal vote according to the CENELEC Rules of Procedure.

This document has been prepared under mandate M/518 given to CENELEC by the European Commission and the European Free Trade Association, and supports essential requirements of Directive 2012/19/EU (WEEE).

For the relationship with the EU Directive see informative Annex ZZ, which is an integral part of this document.

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Introduction

This European Standard aims to assist organisations in:

- achieving effective and efficient treatment and disposal of Waste Electrical and Electronic Equipment (WEEE) in order to prevent pollution and minimise emissions;
- promoting increased material recycling;
- promoting high quality recovery operations;
- preventing inappropriate disposal of WEEE and fractions thereof;
- assuring protection of human health and safety, and the environment;
- preventing shipments of WEEE to operators whose operations fail to comply with this normative document or a comparable set of requirements.

This European Standard supports the objectives of the Community's environment policy. These aim to preserve, protect and improve the quality of the environment, protect human health and utilise natural resources prudently and rationally. That policy is based on the precautionary principle and the maxims that preventive action to minimise environmental damage should, where possible, be rectified at source and the polluter should pay.

This European Standard contains requirements applicable to the treatment of all types WEEE. In the future it will be supported by other standards covering particular treatment requirements for (gas discharge) lamps, flat panel displays, cathode ray tubes (CRTs), photovoltaic panels and other equipment containing volatile fluorocarbons or volatile hydrocarbons and other deliverables on collection and logistics, also re-use. Additionally this standard will be supported by a technical report which will provide a more detailed comparison between normative treatment requirements derived directly from the legal text of Directive 2012/19/EC, especially Annex VII, and between informative treatment requirements going beyond the strict requirements of Directive 2012/19/EC.

This European Standard has been prepared in order to support European legislation and so uses some of the terms defined in European law. In order to ensure that the definitions used in this standard are identical to those defined by law these terms are identified as 'void', indicating that this standard does not contain a definition, and a 'Note to entry' that identifies which law contains the legal definition and the term as defined in that law.

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1 Scope

This European Standard is applicable to the treatment of waste electrical and electronic equipment (WEEE). This standard will be supplemented, for example by standards covering specific equipment.

NOTE This European Standard is intended to cover WEEE arising from electrical and electronic equipment as listed in Annex I and Annex III of Directive 2012/19/EU.

This standard applies to the treatment of WEEE until end-of-waste status is fulfilled, or until the WEEE is prepared for re-use, recycled, recovered, or disposed of.

This standard addresses all operators involved in the treatment including related handling, sorting, and storage of WEEE.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 14899, *Characterization of waste — Sampling of waste materials — Framework for the preparation and application of a sampling plan*

EN 50574:2012, *Collection, logistics & treatment requirements for end-of-life household appliances containing volatile fluorocarbons or volatile hydrocarbons*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply:

3.1
acceptor
3.1.1
acceptor
organisation that physically and/or contractually takes ownership of WEEE fractions, after processing has been carried out by a treatment operator

3.1.2
first acceptor
acceptor that directly accepts one or more WEEE fractions from the treatment operator

3.1.3
downstream acceptor
every acceptor in the treatment chain following after the first acceptor

3.1.4
final acceptor
acceptor where the final treatment step takes place

Note 1 to entry: Examples of final treatment steps are material recycling, energy recovery and disposal.

Note 2 to entry: Final acceptors receive final fractions.

3.2
backlight
part of the flat panel display, used with certain flat panel display technologies, that illuminates the flat panel to make the image visible

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3.3
batch
definite and well-defined amount of WEEE or fractions thereof

3.4
batch process
procedure where a batch is processed to determine the composition of the resulting output fractions and de-pollution performance

3.5
category
void

Note 1 to entry: Category is a term used by Directive 2012/19/EU to describe types of electrical and electronic equipment within its scope. When used in this standard the word 'category 'should be construed as applying in a comparable manner.

3.6
component
constituent part of a device which cannot be physically divided into smaller parts without losing its particular function

3.7
CRT (Cathode Ray Tube)
component used to display images comprising a vacuum tube and integral fluorescent screen

3.8
CRT equipment
equipment containing at least one Cathode Ray Tube

3.9
collection
gathering of WEEE, including the preliminary sorting and preliminary storage of WEEE for the purposes of transport to a logistics facility or a treatment facility.

Note 1 to entry: The term "collection" is defined in Directive 2008/98/EC.

3.10
collection facility
location designated for the gathering of WEEE to facilitate separate collection

Note 1 to entry: Collection facilities are typically registered, listed, or otherwise approved or designated in accordance with the national legislation implementing Directive 2012/19/EU and Directive 2008/98/EU.

3.11
de-pollution
selective treatment during which certain substances, mixtures and components are removed from the WEEE stream

Note 1 to entry: Annex F identifies which (certain) substances, mixtures and components shall be removed and treated from separately collected WEEE, the process being de-pollution.

Note 2 to entry: De-pollution is concerned only with the removal of substances identified in Annex F whereas the term "removal", as defined in Directive 2012/19/EU, is concerned with the removal of hazardous substances.

3.12
disposal
void

Note 1 to entry: Directive 2008/98/EC defines disposal: "'disposal' means any operation which is not recovery even where the operation has as a secondary consequence the reclamation of substances or energy. Annex I sets out a non-exhaustive list of disposal operations".

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3.13
end-of-waste
result of treatment whereby the resulting fractions are no longer classified as waste

Note 1 to entry: Fractions that cease to become waste, following a recovery or recycling operation in compliance with specific criteria according to Article 6 of Directive 2008/98/EC, are regarded as secondary materials and so have achieved end-of-waste status.

3.14
energy recovery
production of useful energy through direct and controlled combustion or other processing of waste

Note 1 to entry: Energy recovery is a recovery operation where the material is used principally as a fuel or other means to generate energy, see R1 of Annex II of Directive 2008/98/EC.

3.15
flat panel
that part of the flat panel display where the image is produced

3.16
flat panel display
assembly of components that use technologies that produce and display an image without the use of cathode ray tubes

Note 1 to entry: The term “flat panel module” is also used as an alternative to the term flat panel display.

3.17
flat panel display equipment
equipment using a flat panel display having a display screen larger than 100 cm^2

Note 1 to entry: Examples of flat panel display equipment include LCD TV, Plasma TV, LCD screens and monitors, and notebooks.

3.18
fraction
separate output stream generated by the treatment of WEEE

3.19
hazardous waste
waste which exhibits one or more hazardous properties

Note 1 to entry: The term “hazardous waste” is defined in Directive 2008/98/EC; the properties of hazardous waste are described in Annex III of Directive 2008/98/EC.

3.20
lamp
electric light source, for general or special lighting purposes, but excluding filament bulbs

Note 1 to entry: General lighting can include straight and compact fluorescent lamps, high intensity discharge lamps – including high pressure sodium and metal halide lamps, low pressure sodium lamps, and Light Emitting Diodes (including organic). Special lighting is provided by lamps for the purpose of spreading or controlling light (UV lamps, projection lamps, xenon lamps, etc.). A non-exhaustive list can be found in Directive 2012/19/EU.

3.21
lamp, gas discharge
void

Note 1 to entry: Regulation (EU) No. 1194/2012 contains the following: “Discharge lamp – a lamp in which the light is produced directly or indirectly by an electric discharge through a gas, a metal vapour, or a mixture of several gases and vapours”.

Note 2 to entry: Examples of gas discharge lamps include straight fluorescent lamps, compact fluorescent lamps, fluorescent lamps, high intensity discharge lamps – including pressure sodium lamps and metal halide lamps, low pressure sodium lamps, and exclude LED lamps and filament lamps.

Note 3 to entry: Some backlighting lamps (typically non-LED types), as mentioned in Annex F of this standard and Directive 2012/19/EU Annex VII, contain mercury.

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3.22
logistics facility
facility for receiving and preparing for transportation to WEEE treatment facilities

3.23
material recovery
void

Note 1 to entry: Decision 2011/753/EU contains the following: "'material recovery' means any recovery operation, excluding energy recovery and the reprocessing into materials which are to be used as fuel".

3.24
national competent authority
body appointed in accordance with the prevailing laws of a Member State to execute various functions

Note 1 to entry: Examples of such functions include performing market surveillance and issuing licences or permits

3.25
operator
entity that performs one or more processes on WEEE

Note 1 to entry: Processes on WEEE could include collection, handling, shipping, sorting, storage, transport, trading, treatment, or preparing for re-use.

3.26
photovoltaic panel
(PV panel)
equipment intended to be permanently installed to a fixed installation that converts solar radiation into electrical energy

3.27
preparing for re-use
void

Note 1 to entry: Directive 2008/98/EC contains the following: "'preparing for re-use' means checking, cleaning or repairing recovery operations, by which products or components of products that have become waste are prepared so that they can be re-used without any other pre-processing".

3.28
recovery
void

Note 1 to entry: Directive 2008/98/EC contains the following: "'recovery' means any operation the principal result of which is waste serving a useful purpose by replacing other materials which would otherwise have been used to fulfil a particular function, or waste being prepared to fulfil that function, in the plant or in the wider economy. Annex II sets out a non-exhaustive list of recovery operations".

3.29
recycling
void

Note 1 to entry: Directive 2008/98/EC contains the following: "'recycling' means any recovery operation by which waste materials are reprocessed into products, materials or substances whether for the original or other purposes. It includes the reprocessing of organic material but does not include energy recovery and the reprocessing into materials that are to be used as fuels or for backfilling operations".

3.30
removal
void

Note 1 to entry: Directive 2012/19/EU contains the following: "'removal' means manual, mechanical, chemical or metallurgic handling with the result that hazardous substances, mixtures and components are contained in an identifiable stream or are an identifiable part of a stream within the treatment process. A substance, mixture or component is identifiable if it can be monitored to verify environmentally safe treatment".

Note 2 to entry: Where used in this standard, it is essential that the word "remove" be construed as having a meaning that corresponds to the defined word "removal".

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3.31
re-use
void

Note 1 to entry: Directive 2008/98/EC contains the following: "'re-use' means any operation by which products or components that are not waste are used again for the same purpose for which they were conceived".

3.32
storage
process whereby WEEE is selected and deposited in a particular location awaiting treatment or preparing for re-use

3.33
temperature exchange equipment
void

Note 1 to entry: This is a category of electrical and electronic equipment covered by Directive 2012/19/EU. This Directive does not define what is meant by "temperature exchange equipment" but Annex IV contains the following non-exhaustive list: refrigerators, freezers, equipment which automatically delivers cold products, air conditioning equipment, dehumidifying equipment, heat pumps, radiators containing oil and other temperature exchange equipment using fluids other than water for the temperature exchange. If this term is clarified further by the European Commission or the Courts then it is essential that the term as used in this standard is construed in the same way as those clarifications.

3.34
treatment
void

Note 1 to entry: Directive 2008/98/EC contains the following: "'treatment' means recovery or disposal operations, including preparation prior to recovery or disposal".

3.35
treatment facility
location where WEEE undergoes treatment

3.36
treatment operator
operator responsible for the treatment of WEEE

3.37
volatile fluorocarbon (VFC)
organic chemical compound consisting of carbon and fluorine atoms (in some cases also with chlorine and/or hydrogen), which is able to change phase when used as a refrigerant or produce cells in plastic structure of an insulating foam when used as a blowing agent

Note 1 to entry: Common commercial designations for these materials are R12, R11 for CFCs, R22, R141b for HCFCs and R134a for HFCs.

Note 2 to entry: Chemically, volatile fluorocarbons could be either alkyl halides or alkene halides.

Note 3 to entry: CFC, HCFC, HFC and HC are all VOCs – Volatile Organic Compounds.

Note 4 to entry: Annex F of this standard and Directive 2012/19/EU Annex VII part 2 refers to 'foam' rather than 'insulating foam', as used in the above definition.

[SOURCE: EN 50574:2012, 3.2.15]

3.38
volatile hydrocarbon (VHC)
organic chemical compound consisting entirely of hydrogen and carbon which is able to change phase when used as a refrigerant or produce cells in plastic structure of an insulating foam when used as a blowing agent

Note 1 to entry: Common designations for volatile hydrocarbons are R290 for propane, R600a for isobutane, R1270 for propene and RC601 for cyclopentane. Mixtures of VHC are also possible.

Note 2 to entry: Annex F of this standard and Directive 2012/19/EU Annex VII part 2 refers to 'foam' rather than 'insulating foam', as used in the above definition.

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[SOURCE: EN 50574:2012, 3.2.16]

3.39
waste
void

Note 1 to entry: Directive 2008/98/EC contains the following: "'waste' means any substance or object which the holder discards or intends or is required to discard".

3.40
WEEE (Waste Electrical and Electronic Equipment)
void

Note 1 to entry: Directive 2012/19/EU contains the following: "'waste electrical and electronic equipment' or 'WEEE' means electrical or electronic equipment which is waste within the meaning of Article 3(1) of Directive 2008/98/EC, including all components, subassemblies and consumables which are part of the product at the time of discarding".

Note 2 to entry: Considering note 1 to entry, this standard covers whole equipment discarded as WEEE and fractions thereof.

4 Administrative and organisational requirements

4.1 Management principles

The treatment operator shall ensure that a management system is in place for all activities in the fields of health, safety, environment and quality.

The treatment operator shall demonstrate continuous improvement of their activities by a review and management process. This management process shall be updated or revised as changes occur to the activities of the treatment operator and evaluated in order to monitor its effectiveness.

The treatment operator shall establish and maintain a procedure in order to identify legal requirements that are applicable to the environmental, health and safety aspects of all activities, services and processes undertaken at the facility.

NOTE A register of the treatment operator's activities and related legal provisions could be maintained together with valid permits required by all relevant authorities.

4.2 Technical and infrastructural pre-conditions

The treatment operator shall possess infrastructure, in terms of size, technologies installed, and characteristics of the operations, that is suitable for the activities performed on site. Suitability of the site shall be assessed by a risk management process for all tasks performed on site and include the identification of hazards, the assessment of risk and, where appropriate, the elimination or reduction of the risk, and documentation of the process.

This risk assessment shall include the identification of those locations and activities that require the use of personal protective equipment and procedures to be followed.

NOTE Directive 89/391/EEC provides requirements for the safety and health for the protection of workers at work.

Treatment facilities including storage areas shall be designed, organised, and maintained to provide safe access to, and egress from, the site. Treatment facilities including storage areas shall be secured to prevent access by unauthorized persons, to prevent damage to and theft of WEEE and components.

Weatherproof covering shall be required for the areas where:

- whole equipment and/or components, intended for preparation for re-use are stored and/or prepared for re-use, or;

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