TECHNICAL SPECIFICATION

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CLC/TS 50625-3-3

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English Version

Collection, logistics & treatment requirements for WEEE - Part 3-3: Specification for de-pollution - WEEE containing CRTs and flat panel displays

Exigences de collecte, logistique et traitement pour les déchets d'équipements électriques et électroniques (DEEE) - Partie 3-3: Spécifications relatives à la dépollution - DEEE contenant des tubes cathodiques et des écrans plats

Sammlung, Logistik und Behandlung von Elektro- und Elektronik-Altgeräten (WEEE) - Teil 3-3: Spezifikation der Schadstoffentfrachtung - WEEE mit CRT und Flachbildschirmgeräten

This Technical Specification was approved by CENELEC on 2017-06-19.

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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European foreword

This document (CLC/TS 50625-3-3:2017) has been prepared by CLC/TC 111X “Environmental aspects for electrical and electronic products and systems”.

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

This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

EN 50625 is currently composed of the following parts:

- EN 50625-1, *Collection, logistics and Treatment requirements for WEEE — Part 1: General treatment requirements*;
- EN 50625-2-1, *Collection, logistics and Treatment requirements for WEEE — Part 2-1: Treatment requirements for lamps*;
- CLC/TS 50625-3-1, *Collection, logistics and treatment requirements for WEEE — Part 3-1: Specification for de-pollution — General*;
- CLC/TS 50625-3-3, *Collection, logistics and treatment requirements for WEEE — Part 3-3: WEEE containing CRTs and flat panel displays* [the present document].

This document has been prepared under mandate M/518 given to CENELEC by the European Commission and the European Free Trade Association.

This CLC/TS 50625-3-3 is to be used in conjunction with CLC/TS 50625-3-1.

This CLC/TS 50625-3-3 supplements or modifies the corresponding clauses in CLC/TS 50625-3-1, so as to convert that publication into the TS: Treatment specification for de-pollution - WEEE containing CRTs and flat panel displays.

When a particular subclause of CLC/TS 50625-3-1 is not mentioned in this CLC/TS 50625-3-3, that subclause applies as far as it is reasonable. When this standard states “addition”, “modification” or “replacement”, the relevant text in CLC/TS 50625-3-1 is to be adapted accordingly.

NOTE The following numbering system is used:

— subclauses, tables and figures that are numbered starting from 101 are additional to those in CLC/TS 50625–3-1;

— unless notes are in a new subclause or involve notes in Part 1, they are numbered starting from 101, including those in a replaced clause or subclause;

— additional annexes are lettered AA, BB, etc.

Introduction

In order to support EN 50625-2-2 *Treatment requirements for WEEE containing CRTs and flat panel displays* and thereby fulfil the requirement of the European Commission's Mandate M/518, it is necessary to include normative requirements (such as target and limit values for the analysis) into a document, which is able to be revised in the future, to take into account both practical experiences and changes in treatment technologies.

1 Scope

Clause 1 of CLC/TS 50625-3-1:2015 is replaced with the following:

This European Technical Specification is intended to be used in conjunction with *Collection, logistics and treatment requirements for WEEE — Part 1: General treatment requirements*, EN 50625-1, *Collection, logistics and Treatment requirements for WEEE — Part 2-2: Treatment requirements for WEEE containing CRTs and flat panel displays*, EN 50625-2-2 and *Collection, logistics and treatment requirements for WEEE — Part 3-1: Specification for de-pollution — General*, CLC/TS 50625-3-1.

2 Normative references

Clause 2 of CLC/TS 50625-3-1:2015 is replaced with the following:

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.

ISO 11885, *Water quality — Determination of selected elements by inductively coupled plasma optical emission spectrometry (ICP-OES)*

EN ISO 12846, *Water quality - Determination of mercury - Method using atomic absorption spectrometry (AAS) with and without enrichment (ISO 12846)*

EN 13657, *Characterization of waste - Digestion for subsequent determination of aqua regia soluble portion of elements*

EN 13656, *Characterization of waste - Microwave assisted digestion with hydrofluoric (HF), nitric (HNO3) and hydrochloric (HCl) acid mixture for subsequent determination of elements*

EN 14899, *Characterization of waste - Sampling of waste materials - Framework for the preparation and application of a Sampling Plan*

EN 15002, *Characterization of waste - Preparation of test portions from the laboratory sample*

EN 15309, *Characterization of waste and soil - Determination of elemental composition by X-ray fluorescence*

ISO 16772, *Soil quality — Determination of mercury in aqua regia soil extracts with cold-vapour atomic spectrometry or cold-vapour atomic fluorescence spectrometry*

EN ISO 17294-2, *Water quality - Application of inductively coupled plasma mass spectrometry (ICP-MS) - Part 2: Determination of selected elements including uranium isotopes (ISO 17294-2)*

ISO/IEC 17025:2005, *General requirements for the competence of testing and calibration laboratories*

ISO 17852, *Water quality — Determination of mercury — Method using atomic fluorescence spectrometry*

EN 50625-1, *Collection, logistics & Treatment requirements for WEEE - Part 1: General treatment requirements*

CLC/TS 50625-3-1, *Collection, logistics & treatment requirements for WEEE - Part 3-1: Specification for de-pollution - General*

EN 50625-2-2, *Collection, logistics & Treatment requirements for WEEE - Part 2-2: Treatment requirements for WEEE containing CRTs and flat panel displays*

3 Terms and definitions

Clause 3 of EN 50625-1, EN 50625-2-2 and CLC/TS 50625-3-1:2015 is applicable, with the following additions:

3.101
deflection coil
copper coil located on the CRT funnel that deflects electron beams emitted by electron canon

NOTE to entry: The electron canon may be otherwise known as an electron gun.

3.102
Flat Panel Display
(FPD)
assembly of components that use technologies that produce and display an image without the use of cathode ray tubes

[Source EN 50625-1:2014, 3.16, modified with the abbreviation FPD]

NOTE to entry: FPDs may contain a various number of mercury containing lamps as backlight.

3.103
manual treatment of FPD
manual treatment of FPDs is a process for which mercury (Hg) containing lamps are removed in order to save their integrity to avoid mercury pollution. However, it is acknowledged that during this process some lamps may be accidently broken resulting in the release of mercury

NOTE to entry: It is recognized that some mercury-containing lamps may be broken prior to arriving at the treatment facility.

3.104
mechanical treatment of FPD
mechanical treatment of FPDs (e.g. a shredding process) is a procedure that intentionally breaks the mercury containing lamps within a contained atmosphere, and to de-pollute the mix of materials of mercury resulting from the treatment

NOTE to entry: Treatment processes where the lamps are mechanically treated together with other fractions (e.g. shredding of the ‘sandwich’ of laminated materials and glue), are considered to be mechanical treatment operations.

4 De-pollution monitoring

4.1 Introduction

4.1 of CLC/TS 50625-3-1:2015 is applicable.

4.2 Target value methodology

4.2 of CLC/TS 50625-3-1:2015 is applicable.

4.3 Mass Balance methodology

4.3 of CLC/TS 50625-3-1:2015 is applicable.