



BSI Standards Publication

# Reuse of used and waste electrical and electronic equipment (UEEE and WEEE) – Process management – Specification

**BIS** | Department for Business  
Innovation & Skills

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### Summary of pages

This document comprises a front cover, an inside front cover, pages i to iv, pages 1 to 24, an inside back cover and a back cover.



## Foreword

### Publishing information

This Publicly Available Specification (PAS) was commissioned by the Department for Business Innovation & Skills (BIS) and its development facilitated by the British Standards Institution (BSI). It came into effect on 31 March 2011.

Acknowledgement is given to the following organizations that were involved in the development of this PAS as members of the Steering Group:

- Association of Manufacturers of Domestic Appliances
- British Retail Consortium
- British Standards Institution (Healthcare & Testing Services)
- Chartered Institution of Wastes Management
- Community Recycling Network
- Department for Business Innovation & Skills
- Environment Agency
- Industry Council For Electronic Equipment Recycling
- Intellect
- Mobile Takeback Forum
- WEEE Advisory Body

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This PAS is not to be regarded as a British Standard. It will be withdrawn upon publication of its content in, or as, a British Standard.

The PAS process enables a specification to be rapidly developed in order to fulfil an immediate need in industry. A PAS may be considered for further development as a British Standard, or constitute part of the UK input into the development of a European or International Standard.

### Relationship with other publications

This PAS was developed from the WEEE Advisory Body's *Specification for the reuse of waste electrical and electronic equipment and used electrical and electronic equipment*.

### Use of this document

It has been assumed in the preparation of this PAS that the execution of its provisions will be entrusted to appropriately qualified and experienced people, for whose use it has been produced.

### Product certification/inspection/testing

Users of this PAS are advised to consider the desirability of third-party certification/inspection/testing of product conformity with this PAS. Appropriate conformity attestation arrangements are described in BS EN 45011. Users seeking assistance in identifying appropriate

conformity assessment bodies or schemes may ask BSI to forward their enquiries to the relevant association.

### **Environmental management system**

Processes used by organizations involved in preparing UEEE and WEEE for reuse need to be designed to identify and minimize the impact they have upon the natural environment. Users of this PAS are advised to consider the desirability of working to an environmental management system such as BS EN ISO 14001 or the Eco-Management and Audit Scheme (EMAS)<sup>1)</sup>.

### **Presentational conventions**

The provisions of this PAS are presented in roman (i.e. upright) type. Its requirements are expressed in sentences in which the principal auxiliary verb is “shall”.

*Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element.*

### **Contractual and legal considerations**

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

**Compliance with a PAS cannot confer immunity from legal obligations.**

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<sup>1)</sup> [www.iema.net/ems/emas](http://www.iema.net/ems/emas)

## 0 Introduction

This Introduction provides information to assist users in understanding the application of PAS 141. It does not specify any requirements, it is for information only. To conform to PAS 141, the requirements given in Clauses 4 to 8 need to be met.

### 0.1 Aims

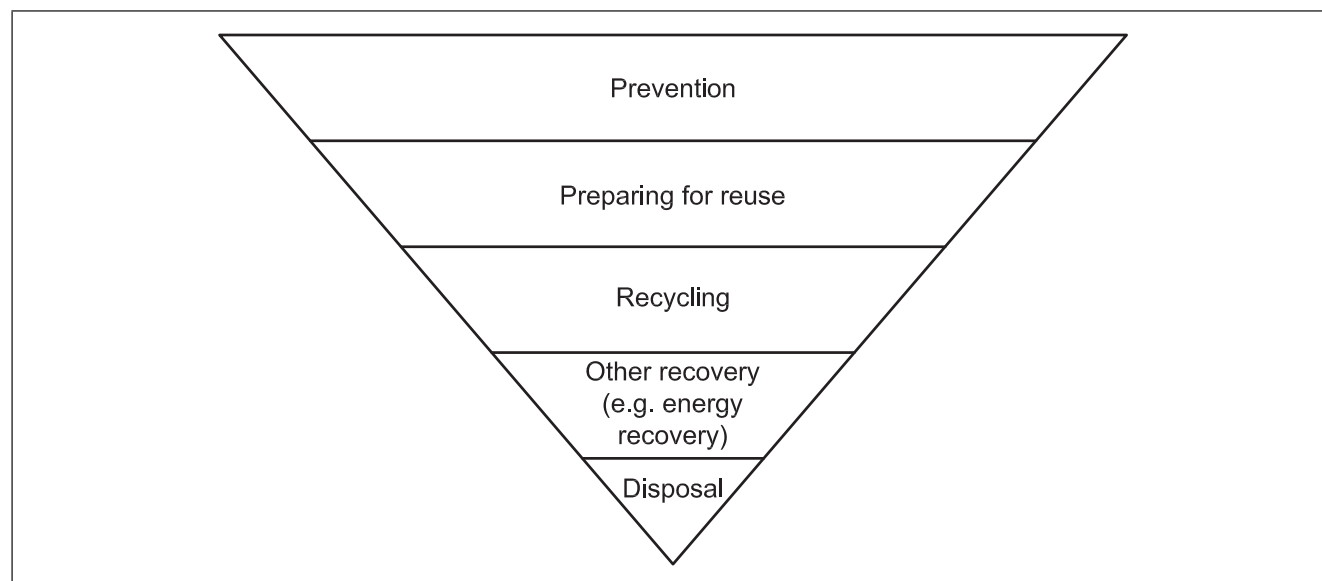
The main aims of this PAS are to:

- a) encourage the reuse of WEEE as promoted by the WEEE Directive (2002/96/EC) [1], Article 1;
- b) reduce the amount of WEEE sent to landfill and incineration by diverting WEEE to be prepared for reuse;
- c) provide a framework for assuring consumers of the quality and safety of REEE as differentiated from WEEE and UEEE that has not been prepared for reuse;
- d) provide a framework for assuring manufacturers that the placing of products on the market for reuse will not adversely affect their brands or reputations for safety and quality;
- e) deter the illegal export of WEEE under the guise of sham reuse;
- f) provide a tool for identifying REEE that has been subject to the preparing for reuse process set out in this PAS;
- g) encourage job creation in organizations involved in preparing WEEE and UEEE for reuse.

### 0.2 Background

The purpose of the WEEE Directive (2002/96/EC) [1] is, as a first priority, the prevention of waste electrical and electronic equipment (WEEE), and in addition, the reuse, recycling, other recovery (e.g. energy recovery) of electrical and electronic equipment (EEE) so as to reduce the disposal of waste. It also seeks to improve the environmental performance of all operators involved in the life cycle of EEE, e.g. producers, distributors and consumers and in particular those operators directly involved in the treatment of WEEE. Preparing for reuse is viewed as a means of diverting waste material from its disposal to landfill and is seen as preferable to recycling and other recovery in the waste hierarchy (see Figure 1).

Figure 1 The waste hierarchy



### 0.3 EEE, UEEE, WEEE and REEE

Table 1 provides a summary explanation of the differences between the terms EEE, UEEE, WEEE and REEE.

Table 1 Summary explanation of EEE, UEEE, WEEE and REEE

| Abbrev. | Term                                | Brief definition                                                                                                                                                                                                                                                                                                     | Cross ref. to definition |
|---------|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| EEE     | electrical and electronic equipment | equipment which is dependent on electric currents or electromagnetic fields in order to work properly and equipment for the generation, transfer and measurement of such currents and fields and designed for use with a voltage rating not exceeding 1 000 V for alternating current and 1 500 V for direct current | 3.4                      |
| UEEE    | used EEE                            | EEE that has been used but that might not be waste<br><i>NOTE This includes, for example, second hand and pre-owned equipment, service repairs, warranty returns and display stock.</i>                                                                                                                              | 3.15                     |
| WEEE    | waste EEE                           | EEE which is waste, including all components, subassemblies and consumables which are part of the product at the time of discarding                                                                                                                                                                                  | 3.18 & 3.16              |
| REEE    | reuse EEE                           | UEEE or WEEE that has been prepared for reuse for the same purpose for which it was conceived                                                                                                                                                                                                                        | 3.13                     |

## 0.4 The preparing for reuse process

The inputs and outputs of the preparing for reuse process are illustrated in Figure 2.

Some equipment might not be considered as suitable input for the preparing for reuse process. This could be for the following reasons:

- a) There is no reuse market for some equipment types.
- b) Equipment could be contaminated (e.g. safety concerns for medical and hygiene equipment).
- c) Equipment could require destruction for data protection and security reasons.
- d) Technology and related safety requirements have advanced to such an extent since the equipment was first placed on the market that the equipment can no longer be considered safe and the cost to meet current requirements is disproportionate.

Following a sorting stage, equipment with an identified potential for reuse may enter the preparing for reuse process. Once prepared, it can leave as either:

- 1) REEE, the preferred output, which is equipment that can be sold or donated for reuse; or
- 2) WEEE, whereby the equipment is identified as waste and is assigned for recycling/other recovery or disposal.

Equipment is prepared for reuse through activities such as visual inspection, safety testing and function testing, data eradication, software removal/loading, repair and cleaning (see Clause 5).

Equipment can be assigned for recycling/other recovery or disposal at any stage of the preparing for reuse process.

Attention is drawn to the WEEE Directive (2002/96/EC) [1] and other legislation on waste, which establish requirements for handling, tracking and reporting of WEEE.

Advice on the classification, handling, tracking and reporting of WEEE as required by the WEEE Directive (2002/96/EC) [1], can be sought from the environmental regulatory authorities.

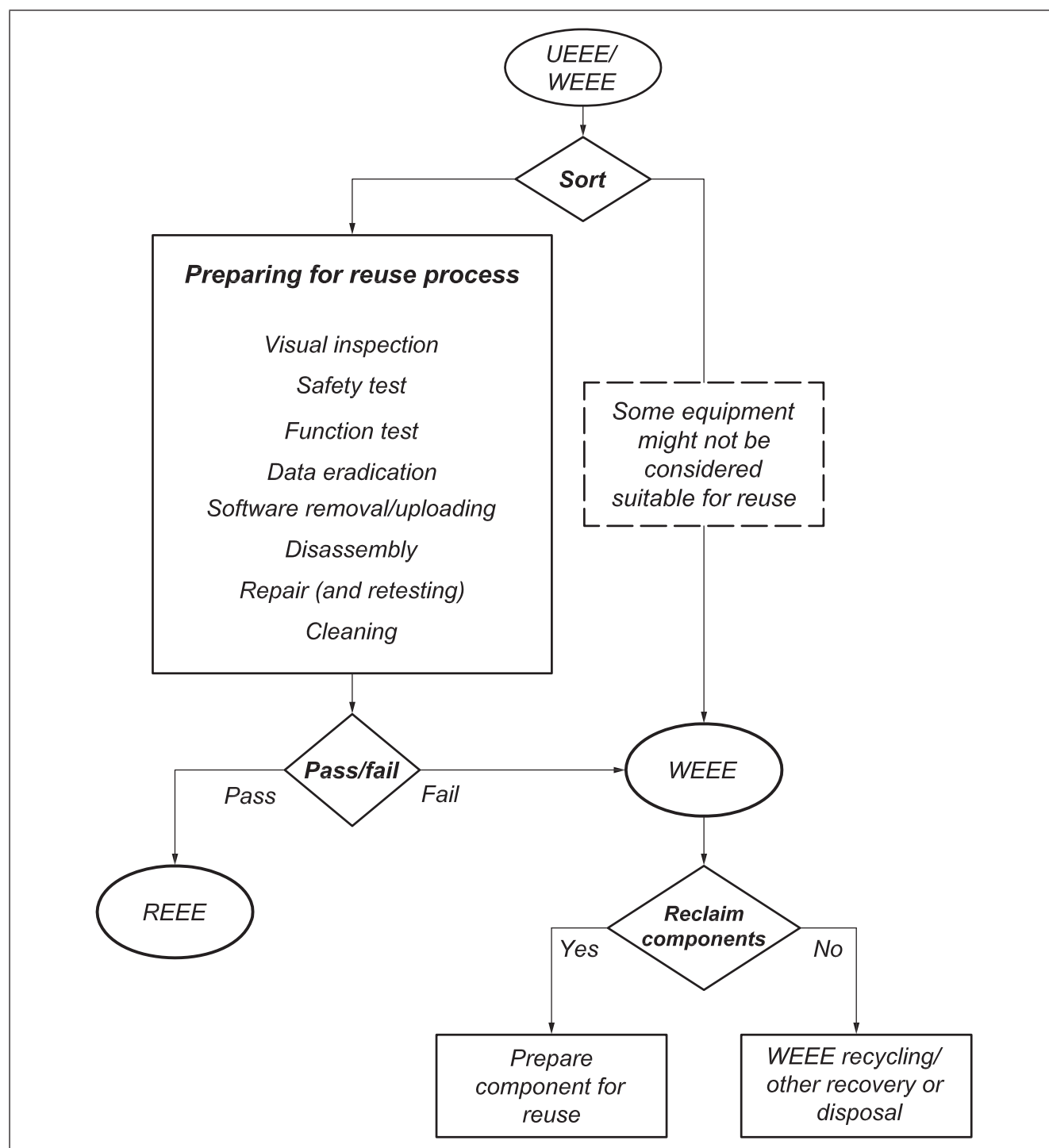
*NOTE In the UK, the environmental regulatory authorities are the Environment Agency (for England and Wales), Scottish Environment Protection Agency and Northern Ireland Environment Agency (see the Bibliography under Useful websites).*

The recycling/other recovery and disposal processes are beyond the scope of this PAS, although the PAS does include requirements for assigning equipment for recycling/other recovery or disposal.

## 0.5 Safety of REEE

Equipment can only be offered for reuse if it has been tested to be safe for use. The tests for safety are set out in 5.2.

Figure 2 An overview of the preparing for reuse process



### 0.6 Certainty of use

WEEE and UEEE can be prepared for reuse and meet all the safety and functionality tests but still be regarded as waste if there is no market for it and it is subsequently discarded. The certainty of use of a piece of equipment changes over time as equipment becomes obsolete when new equipment replaces it. The certainty of use of some equipment might not be determined until it has been prepared for reuse and put