AS 5377:2022

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# Management of electrical and electronic equipment for re-use or recycling



AS 5377:2022

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Association of Accredited Certification Bodies
Australia and New Zealand Recycling Platform (ANZRP)
Australian Battery Recycling Initiative
Australian Council of Recycling
Australian Industry Group
Australian Information Industry Association
Australian Mobile Telecommunications Association
Better Regulation Division (Fair Trading, Safework NSW, TestSafe)
Clean Energy Council
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Department of Environment and Science, Qld
Electronic Product Stewardship Australia
EPA South Australia
Joint Accreditation System of Australia and New Zealand
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Sustainability Victoria
Waste Contractors and Recyclers Association of NSW

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# Management of electrical and electronic equipment for re-use or recycling



Originated as AS/NZS 5377:2013.
Revised and redesignated as AS 5377:2022.

# Preface

This Standard was prepared by the Australian members of the Joint Standards Australia/Standards New Zealand Committee EV-019, E-waste, to supersede AS/NZS 5377:2013, *Collection, storage, transport and treatment of end-of-life electrical and electronic equipment*.

After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this document as an Australian Standard rather than an Australian/New Zealand Standard.

The objectives of this document are to —

(a) prioritize the diversion of electrical and electronic equipment from landfill and maximize resource recovery in accordance with the waste management hierarchy;

(b) provide guidance and minimum requirements for the collection, storage, preparation for re-use, treatment and transport of discarded electrical and electronic equipment for developing, implementing and maintaining management processes;

(c) provide the means for responsible, safe, environmentally sound, transparent and traceable m



(d) facilitate the efficient use of resources in a circular economy.

This document is designed with the principles of circular economy and ecological sustainable development in mind, including lifecycle assessment, the precautionary principle and the principle of due diligence. Operations involved in the collection, storage, transport and treatment of electrical and electronic equipment, whether it be for re-use or recycling purposes, need to understand all requirements and take all reasonable and practicable steps to ensure that these products are managed in a manner that will protect human health and the environment against the adverse effects that may result from such discarded electrical and electronic equipment. Lack of full scientific certainty should not be used as a reason for postponing feasible measures to prevent environmental degradation or adverse health and safety effects. Rather, a precautionary approach should be taken to consider the implementation of appropriate controls.

This document notes that there are general laws in place regulating how to comply with work health and safety regulations and environment protection requirements. This document also notes that Australia is a signatory to transboundary agreements regarding the environmentally sound management of hazardous and other wastes, and elimination of pollutants.

The main differences between this and the previous edition are as follows:

(i) Inclusion of traceability requirements for substances of concern (Section 6).

(ii) Additional requirements for performing a mass balance and calculating the landfill diversion rate (previously called “recycling rate”) and recovery rate.

(iii) Additional requirements for data security.

(iv) Inclusion of an informative appendix on the hazards associated with handling electrical and electronic equipment (Appendix B).

Standards Australia thanks the Department of Agriculture, Water and the Environment for permission to reproduce a definition from *National Waste Policy Action Plan 2019*. The definition is copyright of the Commonwealth of Australia. All rights reserved.

Standards Australia thanks the International Electrotechnical Commission (IEC) for permission to reproduce definitions from IEC 62542:2013 and its Electropedia (IEV). The definitions are copyright of IEC, Geneva, Switzerland. All rights reserved.

The terms “normative” and “informative” are used in Standards to define the application of the appendix to which they apply. A “normative” appendix is an integral part of a Standard, whereas an “informative” appendix is only for information and guidance.

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# Australian Standard®

# Management of electrical and electronic equipment for re-use or recycling

## Section 1 Scope, application and general requirements

### 1.1 Scope

This document sets out principles and minimum requirements for the safe and environmentally sound collection and storage, preparation for re-use, treatment and transport of electrical and electronic equipment (EEE), including components, consumables and parts thereof. Maximizing material recovery, data security, traceability for substances of concern, risk management and quality management are also covered.

This document covers EEE designed for a supply voltage not exceeding 1 000 V for alternating current and 1 500 V for direct current.

NOTE See Appendix A for categories and examples of EEE.



### 1.2

This document is intended to be used by parties involved in the collection, storage, preparation for re-use, treatment and transport of EEE and shall be as set out in Table 1.1.

**Table 1.1 — Application according to value chain participant**

| Section/Clause | Value chain participants | | | | |
|---|---|---|---|---|---|
| | Collection | Storage | Preparation for re-use | Treatment | Transport |
| 1.6 Identifying legal and other requirements | x | x | x | x | x |
| 1.7 Health, safety and environmental management | x | x | x | x | x |
| 1.8 Emergency response and business continuity | x | x | x | x | x |
| 1.9 Business closure plan | x | x | x | x | x |
| 1.10 Competency | x | x | x | x | x |
| 1.11 Task related information | x | x | x | x | x |
| 1.12 Documented information | x | x | x | x | x |
| 1.13 Data security | x | x | x | x | x |
| 1.14 Waste management hierarchy | x | x | x | x | x |
| Section 2 Collection and storage | x | x | x[a] | x[a] | |
| Section 3 Preparation for re-use | x | x | x | | |
| Section 4 Treatment | x[c] | x[c] | | x | |

**Table 1.1** *(continued)*

| Section/Clause | Value chain participants | | | | |
|---|---|---|---|---|---|
| | Collection | Storage | Preparation for re-use | Treatment | Transport |
| Section 5 Transport | | | x[b] | x[b] | x |
| Section 6 Traceability for substances of concern | x | x | x | x | |

"x" denotes the sections/clauses that apply to each value chain participant.

[a] Section 2 is applicable to repairers, refurbishers and recyclers who have collection and storage areas at their facilities.

[b] Section 5 is applicable to repairers, refurbishers and recyclers who transport EEE.

[c] Section 4 is applicable to collection and storage facilities who also perform activities defined as treatment of EEE.

This document should be read in conjunction with the relevant legal requirements for work health and safety, environment protection and the interstate and international movement of waste.

## 1.3 Norr



The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document.

NOTE Documents referenced for informative purposes are listed in the Bibliography.

AS/NZS 5761, *In-service safety inspection and testing—Second-hand equipment prior to sale*

AS/NZS 5762, *In-service safety inspection and testing—Repaired electrical equipment*

## 1.4 Terms and definitions

For the purpose of this document, the following terms and definitions apply.

**1.4.1**
**assemblies**
set of components, at least one of which is an electronic component, assembled into a single unit

EXAMPLE Group of components mounted on a printed circuit board.

[SOURCE: IEC 62542:2013, 3.2, modified – "electronic assembly" replaced by "assemblies". Copyright © 2013 IEC Geneva, Switzerland. www.iec.ch]

**1.4.2**
**batch**
manual or mechanical processing of a definite and well-defined amount of electrical and electronic equipment or fractions thereof to determine the yields and compositions of the resulting output fractions and treatment performance in material recovery and removal of hazardous waste

**1.4.3**
**collection facility**
**collection location**
place temporarily or permanently designated for receiving electrical and electronic equipment from the public in order to sort, aggregate or transport that equipment to storage or treatment facilities

Note 1 to entry: The collection facility or location may be co-located with storage or treatment facilities.

**1.4.4**
**collection unit**
container used to aggregate, store and transport electrical and electronic equipment