



Introduction

Used electronic equipment proposed to be exported or imported may be considered a hazardous waste under Australia's *Hazardous Waste (Regulation of Exports and Imports) Act 1989 (the Act)*.

If you intend to export or import used electronic equipment, or to sell it for export, you must read the whole of this document. In order to simplify the legal context this document provides six basic questions to determine whether used electronic equipment is or is not hazardous waste. The questions are illustrated in the table and flowchart overleaf.

Export or import of hazardous waste without a permit under the Act may result in severe penalties, including fines or imprisonment for importers, exporters or their Australian suppliers.

Information on how to apply for a permit is contained in the *Australian Guide to Exporting and Importing Hazardous Waste: Applying for a Permit*, available at www.deh.gov.au/industry/chemicals/hwa/papers/gdpermits01.html

Legal context: the Hazardous Waste (Regulation of Exports and Imports) Act 1989

The **object** of the Act is to regulate the export, import and transit of hazardous waste to ensure that exported, imported or transited waste is managed in an environmentally sound manner so that human beings and the environment, both within and outside Australia, are protected from the harmful effects of the waste.

Hazardous wastes are wastes listed in the Basel Convention and other international agreements.

Wastes are substances or objects that are to be disposed of by recycling or final disposal.

The Act regulates the export and import of hazardous wastes, including:

- Waste electrical and electronic assemblies or scrap containing components such as accumulators and other batteries, mercury switches, glass from cathode ray tubes and other activated glass and polychlorinated biphenyl capacitors, or contaminated with constituents such as cadmium, mercury, lead, or polychlorinated biphenyl to an extent that they possess any hazardous characteristics.

The Act does not regulate the export and import of non-hazardous wastes, including:

- Electronic assemblies consisting only of metals or alloys
- Waste electrical and electronic assemblies or scrap (including printed circuit boards) not containing components such as accumulators and other batteries, mercury-switches, glass from cathode ray tubes and other activated glass and polychlorinated biphenyl capacitors, or not contaminated with constituents such as cadmium, mercury, lead, or polychlorinated biphenyl or from which these have been removed, to an extent that they do not possess any hazardous characteristics.

The Act does not regulate the export and import of materials that do not contain any wastes, including:

- Electrical and electronic assemblies (including printed circuit boards, electronic components and wires) destined for direct re-use, and not for recycling or final disposal (Re-use can include repair, refurbishment or upgrading, but not major reassembly).

The Act also does not regulate the following waste when it is sent from one OECD country to another OECD country for recovery. Note that the Act normally regulates this waste when it is exported to or imported from a non-OECD country, or sent for final disposal. A list of OECD countries is available at www.oecd.org



- Electronic scrap (e.g. printed circuit boards, electronic components, wire, etc.) and reclaimed electronic components suitable for base and precious metal recovery.

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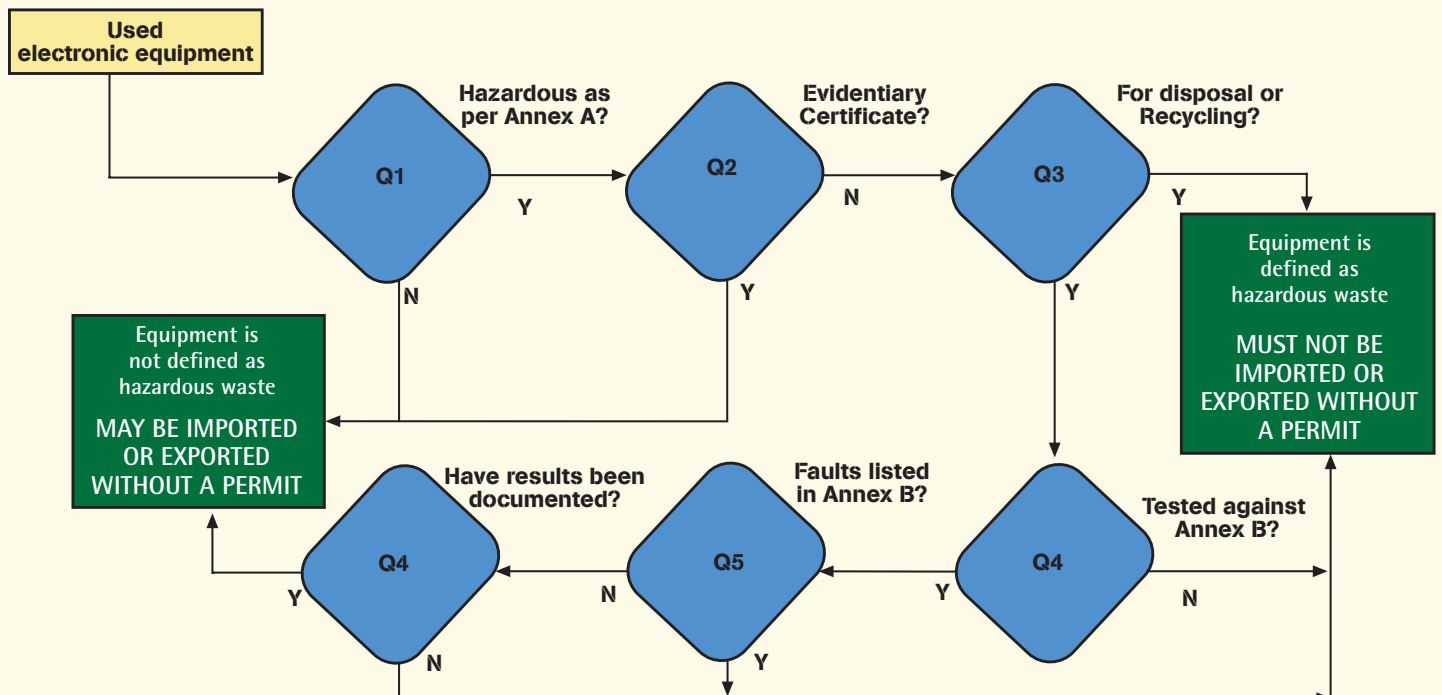
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How to determine whether used electronic equipment, proposed for export, is or is not hazardous waste.

Use the following table or flowchart with Annex A and B to help determine whether used electronic equipment, proposed for export, is or is not hazardous waste.

Questions		Answer	Action
QUESTIONS RELATING TO STATUS AS HAZARDOUS WASTE	Q1	Is the equipment potentially hazardous, as defined in Annex A?	Yes Go to Q2
		No The equipment is not defined as hazardous waste and may be exported without a permit.	
	Q2	Has the Minister made an evidentiary certificate that the equipment in question is not a waste?	Yes Equipment that is certified not to be a waste may be exported without a permit.
		No Go to Q3	
	Q3	Is the equipment or any of its components destined for a disposal operation, including recycling, as defined by the Act?	Yes Equipment is defined as hazardous waste and must not be exported without a permit.
		No Go to Q4	
QUESTIONS RELATING TO TEST STATUS	Q4	Has the equipment been tested in accordance with Annex B?	Yes Go to Q5
		No Equipment that has not been tested is defined as hazardous waste and must not be exported without a permit.	
	Q5	Do the results of testing in accordance with Annex B define the equipment as waste, and hence as hazardous waste?	Yes Equipment that is defined as hazardous waste must not be exported without a permit.
		No Go to Q6	
	Q6	Have the results of the testing been documented and labelled in a way that conforms to Annex B?	Yes After testing, equipment that has been documented as not being a hazardous waste may be exported without a permit.
		No Equipment without documented test results is defined as hazardous waste and must not be exported without a permit.	

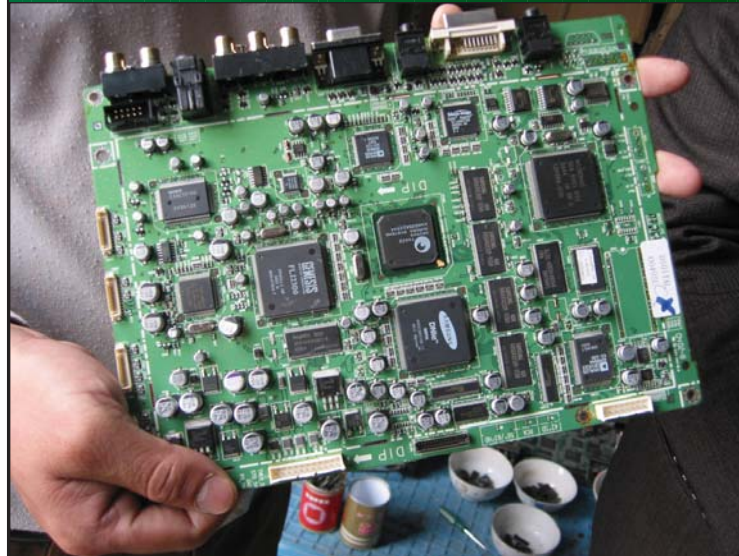


ANNEX A

Hazardous Constituents

Most used electronic equipment will contain hazardous components (see below). This waste is therefore assumed to be hazardous waste unless it can be shown that it does not contain any of the following:

- lead-containing glass from cathode ray tubes (CRTs) and imaging lenses, which are assigned to Annex VIII entries A1180 or A2010 "glass from cathode ray tubes and other activated glass". This waste also belongs to category Y31 in Annex I, Lead; lead compounds and is likely to possess hazard characteristics H6.1, H11, H12 and H13.
- nickel-cadmium batteries, which are assigned to Annex VIII entry A1170 "unsorted waste batteries...". This waste also belongs to category Y26 in Annex I, cadmium; cadmium compounds and is likely to possess hazard characteristics H6.1, H11, H12 and H13.
- selenium drums, which are assigned to Annex VIII entry A1020 "selenium; selenium compounds". This waste also belongs to category Y25 in Annex I, Selenium; selenium compounds and is likely to possess hazard characteristics H6.1, H11, H12 and H13.
- printed circuit boards, which are assigned to Annex VIII entry A1180 "waste electronic and electrical assemblies.....", and entry A1020 "antimony; antimony compounds" and "beryllium; beryllium compounds". These assemblies contain brominated compounds and antimony oxides as flame retardants, lead in solder as well as beryllium in copper alloy connectors. They also belong in Annex I, to categories Y31, lead; lead compounds, Y20, beryllium, beryllium compounds and Y27 antimony, antimony compounds and Y45, organohalogen compounds other than substances referred to elsewhere in Annex I. They are likely to possess hazard characteristics H6.1, H11, H12 and H13.
- fluorescent tubes and backlight lamps from Liquid Crystal Displays (LCD), which contain mercury and are assigned to Annex VIII entry A1030 "mercury; mercury compounds". This waste also belongs to category Y29 in Annex I, Mercury; mercury compounds and is likely to possess hazard characteristics H6.1, H11, H12 and H13.
- plastic components containing Brominated Flame Retardants (BFRs) are assigned to Annex VIII entry A3180 "Wastes, substances and articles containing, consisting of or contaminated with polychlorinated biphenyl (PCB), polychlorinated terphenyl (PCT), polychlorinated naphthalene (PCN) or polybrominated biphenyl (PBB), or any other polybrominated analogues of these compounds, at a concentration of 50 mg/kg or more." This waste also belongs to category Y45 in Annex I, Organohalogen compounds other than substances referred to elsewhere in Annex I, and to category Y27 Antimony, antimony compounds, and is likely to possess hazard characteristics H6.1, H11, H12 and H13.



ANNEX B

FAULTS INDICATING ELECTRONIC EQUIPMENT IS WASTE

Electronic equipment is defined as waste if it has any of the following:

1. **A defect that materially affects its functionality. For example it does not:**
 - a. power up; or
 - b. perform BIOS or internal set-up routines or self-checks fail; or
 - c. have a functioning motherboard; or
 - d. communicate with the host; or
 - e. print/scan/copy a test page or the page is not identifiable or readable or is blurred or lined; or
 - f. read, write or record/burn.
2. **Physical damage that impairs its functionality or safety, as defined in relevant standards. Physical damage includes, but is not limited to:**
 - a. a screen that has physical damage, such as burn marks, or is broken, cracked, heavily scratched or marked, or that materially distorts image quality; or
 - b. a signal (input) cable has been cut off or cannot be easily replaced without recourse to opening the case.
3. **A faulty Hard Disk Drive and a faulty RAM and a faulty Video Card.**
4. **Batteries made with lead, mercury or cadmium or batteries containing hazardous liquid cathodes that are unable to be charged or to hold power; or**
5. **Insufficient packaging to protect it from damage during transportation, loading and unloading operations.**



Photos: Dr Greg Rippon

For further information please contact the Department of the Environment and Heritage on Freecall 1800 803 772 or visit the web site at www.deh.gov.au/industry/chemicals/hwa



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