



## FACT SHEET – IMPROVING RESOURCE RECOVERY CENTRES

### Whitegoods

Whitegoods are electrical appliances used for routine household tasks such as cooking, washing laundry and food preservation. This fact sheet covers fridges, freezers and dishwashers; air conditioners, fans, personal heaters; washing machines and clothes dryers; ovens, cooktops and stoves; and small appliances (e.g. microwaves, toasters, irons, kettles, vacuum cleaners, hairdryers, hair straighteners).

#### Regulatory requirements (OH&S and environmental) and standards

Various acts, regulations and guidelines apply to the storage, transfer, transport, recycling and disposal of whitegoods at resource recovery centres/transfer stations, including a number of legislative instruments that prohibit the discharge of refrigerants to the atmosphere. These include:

- Occupational, health and safety (OH&S)
  - Occupational Health and Safety Act 2004 (Victorian Government)
  - Safe manual handling techniques (Sustainability Victoria: Guide to Best Practice at Resource Recovery Centres)
- Environmental
  - Environment Protection Act 1970
  - Environment Protection (Industrial Waste Resource) Regulations 2009
  - Ozone Protection and Synthetic Greenhouse Gas Management Act 1989
  - Ozone Protection and Synthetic Greenhouse Gas Management Regulations 1995
- Relevant Australian Standards
  - AS 5377 – Collection, Storage, Transport and Treatment of End-of-life Electrical and Electronic Equipment

#### Potential hazards and OH&S requirements

There are numerous potential hazards and OH&S considerations when handling whitegoods. These include:

- broken glass
- sharp edges on metal or plastic casings
- safe manual handling procedures
- potential for fridges, freezers and air conditioners to contain ozone depleting substances and synthetic greenhouse gases which, can pose health, safety and environmental risks if not managed correctly or degassed by a licensed technician.

#### Acceptance criteria

Criteria for accepting white goods includes:

- whitegoods must be separated from any general waste
- items should be of domestic quantities (i.e. up to five items per customer), with larger quantities directed to private whitegoods recycling contractors.

#### Storage guidelines

There are a number of guidelines for storing whitegoods at resource recovery centre/transfer stations.

Best practice storage, in addition to the minimum requirements described below, includes:

- Ensure an approved contractor degasses any end-of-life air conditioners, fridges and freezers prior to transport from site.
- Store whitegoods with a roof covering.
- Store whitegoods adjacent to the metals recycling stream (metals recycling collection contractors are also the most common collectors of whitegoods).
- Stack whitegoods neatly on pallets or in large skip bins.

The minimum requirements for whitegoods storage include:

- store in a secure area
- store outside in a neat pile adjacent to other metals for recycling
- store only up to a recommended maximum of 50 whitegoods
- keep whitegoods separate to general waste streams
- sort whitegoods by use (e.g. fridges and freezers, small appliances)
- store in a suitably labelled area (refer to Sustainability Victoria signage library).

### Transport and recycling guidelines

Depending on the type of appliance, whitegoods should be degassed by licenced technicians prior to being transported to a recycling facility for processing. Whitegoods are then usually disassembled into their parts (e.g. metal and plastic) in order to extract hazardous and valuable materials (e.g. copper, aluminium and other metals). This process can either be done by hand or through shredding. Residual material that cannot currently be recycled is usually disposed in landfill.

Best practice and minimum standards in the transport and recycling of whitegoods are not significantly differentiated and the following standards should be met at resource recovery centres/transfer stations:

- Most whitegoods will be processed by metal recyclers, who may also provide a degassing service. Check if your metal recycler provides a degassing service as part of their processing.
- Fridges and freezers must be degassed (by a licenced technician) either prior to transporting or at the recycling facility.
- Whitegoods should not be placed in landfill, as they may leak hazardous or toxic materials into the landfill and surrounding environment.

### Record keeping guidelines

It is important to keep records of all whitegoods received and sent for recycling from a resource recovery centre/transfer station. This is to enable tracking of resource recovery from the site, as well as managing onsite storage.

Best practice record keeping for whitegoods is to obtain a certificate of reuse/recycling from the processing/recycling of the whitegoods. This should include a record of degassing fridges, freezers and air conditioning units.

Minimum requirements for record keeping includes:

- recording the receipt of any whitegoods at the gatehouse
- a monthly stocktake of whitegoods stored on site which can be compared against the maximum allowable stored on site
- recording the number of whitegoods collected from the site by an approved contractor.



### Framework for continuous improvement

Resource recovery/transfer station operators should stay up to date on current whitegoods recycling regulations, as well as collection and recycling contractors and facilities that operate within their region.

A framework for continuous improvement includes the following activities:

- Communicate and engage with other local municipalities to investigate consolidated collection/joint procurement activities.
- Seek out and build relationships with local collection and recycling contractors who meet the relevant standards and regulations.
- Continuously improve storage areas, working towards storing whitegoods by separated streams, stored outside with a roof covering and stacked neatly on pallets or in large skip bins.

### Further information

For further information and resources, please contact Sustainability Victoria on 03 8626 8700 or visit [www.sustainability.vic.gov.au](http://www.sustainability.vic.gov.au)