



Covered Electronic Device/E-Waste Special Waste Management Plan Metro Transfer Station Operations

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PURPOSE

This document is a standard operating procedure for the acceptance, handling, packaging, storage, recycling and releases of electronic waste at the Metro South and Central Transfer Stations.

BACKGROUND

Covered electronics device(s) is a term for E-waste collected at the Transfer Station. This material is screened, accepted (if appropriate) and segregated as part of the recycling program at the facility. Recycling is accomplished through contract with a State approved contractor.

As a service provider under the Oregon ECycling program, the Metro Transfer Station Operator has agreed to follow the Environmental Management Practices established as part of the program. Those include service standards, health and safety standards, recording keeping and site management protocols.

Anyone bringing seven or fewer computers, monitors and TVs at a time may recycle their electronics at no charge at participating collection sites, which includes Metro Central and Metro South. However, households, small businesses with 10 or fewer employees and small 501(c)(3) nonprofits with 10 or fewer employees may recycle more than the seven item limit. Customers that have materials that are not accepted as part of this program are provided with literature or contacts for proper disposal of their waste.

Beginning January 1, 2010 disposal of these items will be prohibited by Oregon law.

Electronics contain hazardous substances such as lead, cadmium and mercury that can harm our health and environment. Electronics also contain valuable materials such as copper, gold and aluminum that can be recycled and used in new products. Recycling keeps toxics out of our landfills and incinerators and conserves natural resources.

Preparation of this document is a requirement for acceptance of this material under OAR 340-094-0040(11)(b)(j) and the Solid Waste permit for this transfer station.

HAZARDS OF E-WASTE

As mentioned earlier, E-Waste contains hazardous substances such as lead, cadmium and mercury.

When improperly recycled (such as burning to release metals), highly toxic contaminants, fire retardants and heavy metals can be released into the environment. Persistent organic

pollutants make up a large part of the chemical residue from improper E-Waste recycling. The long-lasting substances are known to contaminate air, soils, sediments, animals and people.

The Metro Transfer Stations act as a receiving/reloading operation to provide convenient access to recycling services. Units are not opened and care is taken to prevent breakage of units being delivered, reloaded and shipped. Special precautions should be taken to wear proper PPE while handling E-Waste. Proper lifting techniques and using the buddy system whenever possible will prevent injuries when handling these large and often unwieldy items.

Recognizing these hazards and using safe work methods are the best way to prevent exposure injury.

SAFE HANDLING PROCEDURES

General Safety Rules

- ✓ Standard issue PPE should be adequate to monitor tipping of this material.
- ✓ Assist the customer is in pulling their car or truck as closely as possible to the staging area.
- ✓ Use proper lifting techniques
- ✓ Ask for assistance from a co-worker whenever possible to lift heavy or unwieldy items
- ✓ Place computers, monitors and smaller t.v.s directly into gayloads
- ✓ Larger items should be loaded directly onto pallets for shrink wrapping prior to transport

Safety Equipment Used for Spill Cleanup

- ✓ "Super fine" absorbent, if needed
- ✓ Broom
- ✓ Pallets, gaylords, hand trucks, and forklifts if needed

Personal Protective Equipment for Spill Cleanup

- ✓ Hard hat
- ✓ Eye protection
- ✓ Leather work boots with puncture resistance soles
- ✓ Leather gloves

The area where a spill has occurred will be cordoned off by use of traffic cones or other physical barrier. Once secure, the area will be swept remove the contamination and the material will be pushed using a skid loader or shoveled into the pit for disposal.

Proper Acceptance Procedures

At the time of acceptance the spotter will:

- Confirm that the customer has 7 or fewer items to recycle.
- Direct the customer to the closest staging area for off loading
- Monitor off loading to prevent breakage
- Keep the area neat and items safely stacked between customers.
- Complete cleanup of the area if needed, prior to further tipping activity in the stall.
- Pull E-Waste from the tipping floor if discovered during normal activities.

Proper Loading Procedures

Once the material has been accepted for recycling the operator will:

- Stack and prepare pallets of E-Waste for pickup
- Move full pallets and gaylords to holding areas out of the normal tipping areas
- Shrink wrap palletized items to secure for transport
- Contact the recycling vendor for pickup
- Manifest the material for weighing prior to leaving the site
- Assist with loading the materials for transport

Documentation Requirements

The solid waste operating permit requires documentation of waste acceptance for this special waste. The facility operator will:

- Retain documentation of all materials sent off site (how much, when and who)
- Spotter log entries for E-Waste found in the mixed waste
- Written report if any incident , accident or near miss concerning this material.