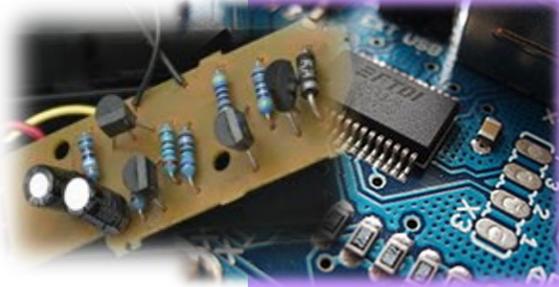


## Environmental Guidelines for managing E-wastes

The Environmental Protection Agency, recognizing that E-Wastes are on the increase in Guyana, has developed *Environmental Guidelines* for its sound Management.



## Unseen hazards of E-wastes

Electronics are very dangerous when released into the environment. They contain circuit boards, wiring and electrical connections that make the device actually function. These can pose problems to the environment and human health, since they contain harmful chemicals, which can leak and contaminate the immediate environment in which they are disposed.

## Harmful materials found in electronics

**Mercury:** found in fluorescent tubes, thermostats and flat screen monitors.

**Sulphur:** found in lead-acid batteries.

**Cadmium:** the most common form of cadmium is found in nickel-cadmium rechargeable batteries.

**Lead:** used for solder, and can be found in CRT monitors (television and computer), lead-acid batteries and some formulations of PVC.

**Copper:** found in the wiring of almost all appliances. It can cause irritation of the throat and lungs and affect the liver, kidneys and other body systems.

**Arsenic:** often found in circuit boards.

*The health impacts of these chemicals include dermatitis, memory loss, damage to vital organs, impairment of the brain, and even death. They can also disrupt our environment, lower fertility and development of plants and animal.*

Environmental Protection Agency

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## Good E-Waste management practices

To reduce the amount of E-Waste generated **reuse** and **recycling** are encouraged.

Working devices can be donated. Also, non-working devices can be donated or sold to electronic repair shops to be used for spare parts. Some parts can also be used to assemble new devices, or in construction and flatware.

**Recycling** is the use of old of electronic components that cannot be repaired to make new ones. This however is done where electronic recycling facilities exist.

### Documents required for Exportation

1. *Application Form for Environmental Authorisation*
2. *EPA's letter of Authorisation.*
3. *Transboundary Movement of Hazardous Wastes Notification Form*
4. *Guyana Revenue Authority (GRA) Movement Document.*
5. *Letter of Consent from Country of Import.*

## Environmental Guidelines



## Managing your E-Wastes



## What is E-Waste?

The term *E- Waste* is short for *Electronic Waste* generated from broken or outdated electronic devices. Everyday, we use and have access to common electronic devices that are part of modern life.

Some common electronics which end up as E-Wastes are:

- Computers;
- Telephones;
- Cellular phones;
- Televisions;
- DVD Players;
- MP Players;
- Video games;
- Digital Cameras; and Camcorders.



Discarded electrical or electronic devices including everything from battery operated toys and hair dryers, all the way up to computers and other circuit board containing equipment, are considered E-Waste..



## What you should know about E-Waste

- During the 21<sup>st</sup> century, the use of electronic devices, particularly computers, has skyrocketed in developing countries.
- In the last five years, Internet use has increased by almost fifty percent (50%), rising from forty four percent (44 %) in 2006, to sixty two percent (62%) in 2011.
- By 2030, it is estimated that **developing countries** will discard 400-700 million tons of obsolete computers annually. This is *more than twice* the amount of computer generated E-Waste estimated annually for **developed countries**.

## Managing E-Waste

- Developing countries will face an enormous challenge in the near future, to manage the high volume of E-Waste they are predicted to generate.
- Most developed countries lack the capacity to manage and recycle the hazardous materials found in E-Wastes.
- At present most developing countries, lack the facilities and systems to appropriately dispose of the E-Wastes they generate.
- E-Wastes are mixed together with municipal waste and disposed; a practice that leads to pollution and poses a serious health risk.

*To address the issue of E-Waste Management, a number of global initiatives have been undertaken that are linked to the objectives of the Basel Convention on Control of Trans-boundary Movement of Hazardous Wastes and their Disposal.*



The EPA currently advises all persons to store all E-Wastes properly until a suitable method of disposal is available locally.

Here are several tips to follow when storing Electronic Waste:

- Store in a fully enclosed building.
- Store in a way that prevents contact with environmental elements and breakage.
- Store in an area that is inaccessible to the public.
- Remember once E-Wastes remain intact, they will not cause harm to humans or the environment.