E-waste: cathode ray tube and new equipment

Business, Manufacturing

Electronic waste or e-waste is any broken or unwanted electrical or electronic appliance. E-waste includes computers, entertainment electronics, mobile phones and other items that have been discarded by their original users. E-waste is the inevitable by-product of a technological revolution. Driven primarily by faster, smaller and cheaper microchiptechnology, society is experiencing an evolution in the capability of electronic appliances and personal electronics.

For all its benefits, innovation brings with it the byproduct of rapid obsolescence. According to the EPA, nationally, an estimated 5 to 7 million tons of computers, televisions, stereos, cell phones, electronic appliances and toys, and other electronic gadgets become obsolete every year. According to various reports, electronics comprise approximately 1 - 4 percent of the municipal solid waste stream. The electronic waste problem will continue to grow at an accelerated rate. Electronic, or e-waste, refers to electronic products being discarded by consumers. Introduction of E-Waste

Between 1997 and 2007, nearly 500 million personal computers became obsolete-almost two computers for each person. 750, 000 computers expected to end up in landfills this year alone. In 2005, 42 million computers were discarded

- 25 million in storage
- 4 million recycled
- 13 million land filled
- 0. 5 million incinerated

Electronic products often contain hazardous and toxic materials that pose environmental risks if they are land filled or incinerated . Televisions, video and computer monitors use cathode ray tubes (CRTs), which have significant amounts of lead. Printed circuit boards contain primarily plastic and copper , and most have small amounts of chromium, lead solder, nickel, and zinc. In addition, many electronic products have batteries that often contain nickel, cadmium, and other heavy metals . Relays and switches in electronics, especially older ones, may contain mercury. Also , capacitors in some types of older and larger equipment that is now entering the waste stream may contain polychlorinated biphenyls (PCBs).

You can reduce the environmental impact of your E-Waste by making changes in your buying habits, looking for ways to reuse including donating or recycling. Preventing waste to begin with is the preferred waste management option. Consider, for example, upgrading or repairing instead of buying new equipment to extend the life of your current equipment and perhaps savemoney. If you must buy new equipment, consider donating your still working, unwanted electronic equipment. This reuse extends the life of the products and allows non-profits, churches, schools and community organizations to have equipment they otherwise may not be able to afford.

In South Carolina, for example, Habitat for Humanity Resale Stores, Goodwill and other similar organizations may accept working computers. When buying new equipment, check with the retailer or manufacturer to see if they have a " take-back program" that allows consumers to return old equipment when buying new equipment. Dell Computers, for example, became the first manufacturer to set up a program to take back any of its products anywhere

in the world at no charge to the consumer. And, when buying, consider products with longer warranties as an indication of long-term quality.