Safely Handling Electronic Waste Meeting Kit

WHAT'S AT STAKE

Electronics are now a part of our daily lives. As each new product comes to the market, our old electronics, spent batteries, and other accessories become electronic waste (e-waste), and head to the waste pile. Most companies have an area to stockpile equipment and supplies before final disposal. There are risks to handling e-waste, including physical injuries due to lifting, cuts from sharps, and exposure to hazardous dusts and chemicals that can pose health effects. To minimize injury, it is important to learn how to store, handle, and process e-waste safely.

WHAT'S THE DANGER

DANGEROUS E-WASTE EXPOSURE FOR WORKERS

Unsafe handling of electronics and e-waste exposes workers to harmful substances. Toxic materials with toxic chemicals leach into the environment expose workers to contaminants such as lead, mercury, cadmium, and arsenic which can lead to irreversible health effects like cancer, miscarriage, neurological damage, and diminished IQs.

SOURCES AND IDENTIFICATION OF E-WASTE

- The first concern with e-waste is the potential exposure of workers to chemical dust and vapors.
- Lead, cadmium, beryllium, flame retardant dusts.
- Mercury vapors

These products include 6 categories each with a different life cycle and different impacts on health and recycling.

1. Heat exchange devices, commonly known as cooling and

freezing equipment: Refrigerators, freezers, air-conditioning, heating.
2. Screens, monitors. Typical equipment includes televisions, monitors, laptops, notebooks, and tablets.
3. Lamps. Fluorescent tubes, high-intensity discharge, and LED.
4. Large appliances. Washing machines, dryers, dish washers, electric stoves, copying equipment and photo-voltaic panels
5. Small appliances: Vacuum cleaners, microwave ovens, ventilation, toasters, electric kettles, electric shavers, scales, calculators, radios, cameras, electric and electronic toys, small electric and electronic tools, small medical devices, small monitoring, and control devices
6. Small I.T. and telecommunications devices. Mobile phones, global positioning systems (GPS), pocket calculators, routers, personal computers, printers, telephones

HOW TO PROTECT YOURSELF

BEST PROTECTION MEASURES FOR WORKERS DEALING IN E-WASTE

Wear proper PPE such as:

- Sturdy work gloves
- Chemical-resistant gloves
- Safety glasses
- Coveralls
- Work boots
- Respirator use
- Minimize e-waste dust in the workplace by using good housekeeping practices. Keep the work area clean by storing items properly to minimize breakage or leaking; store batteries in sealed plastic containers and keep equipment neatly stacked or in boxes.
- Use good hygiene practices after you have handled e-waste. Always wash your hands before eating or drinking so that you do not potentially ingest hazardous dusts or chemicals. Change clothes and shower to remove dusts from your hair, skin, and clothing. Change your shoes or leave them outside so that you don’t track contaminants into the office, car,

or home.

- Use good body postures and lifting techniques when you are working with e-waste. Use carts, dollies, and boxes with handles to move equipment.

ECO-FRIENDLY WASTE DISPOSABLE TECHNIQUES

- Take electronic items to the waste and recycling center. Finding an e-waste recycling center is a great way to recycle. It can be stored in the garbage and sent to the recycling center.
- Send back electronic items. There is an exchange policy in many electronic companies to send all your obsolete electronic gadgets and buy a new one. Sometimes, they also give a discount when purchasing a new item. Some companies also provide recycling services, including drop-off points where you can leave old phones or tablets or old electronic items, which are then collected for recycling.
- Donate or sell old electronics. Removing or selling obsolete electronic devices are two great e-waste disposal techniques adapted to manage any e-waste wisely. You can sell them on a popular site like eBay. You will also find that many local electronic shops are ready to buy your old electronic goods. Donating your old electronic devices to others, such as the students in need or non-governmental organizations, can be another good idea. Be very careful while doing so because your electronics might have some data not meant to be shared.
- Use cloud services to store data. Cloud Services is a great way to store all your important data online. It is a convenient option because you do not need to move the storage device at all times. The main advantage of using the cloud service is that you can reach your data from anywhere worldwide. Cloud storage reduces the need for building new storage devices, resulting in less environmental impact because it helps indirectly minimize carbon footprints and reduce e-waste.
- Rent electronic items instead of shopping. If you are looking for a cost-effective and friendly option for the

environment, then renting electronics can be your best choice because you only have to pay for a period of use, and you do not have to buy a new device.

- Say no to landfill. The main reason is that there are many poisonous chemicals such as mercury and lead in e-waste, which are harmful to the environment and humans. The landfill method releases these toxic chemicals into the environment, adversely affecting the environment and triggers serious health problems.
- Reduce unnecessary electronic gadget shopping. Make sure that the product you purchase is practical and durable. In doing so, you can avoid buying unnecessary electronic items.

FINAL WORD

Be sure to review all state and federal laws regarding the handling and disposal of e-waste and other toxic substances. By learning about the types of e-waste and hazards you handle, and by using safe work practices, good housekeeping, and proper storage and handling techniques, you can stay safe and prevent injury while working with e-waste.