Is E-Waste our next thrash hurdle?

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What is E-Waste?

- E-waste is any refuse created by discarded electronic devices and components as well as substances involved in their manufacture or use. The disposal of electronics is a growing problem because electronic equipment frequently contains hazardous substances. In a personal computer, for example, there may be lead in the cathode ray tube (CRT) and soldering compound, mercury in switches and housing, and cobalt in steel components, among other equally toxic substances. According to the Environmental Protection Agency (EPA), more than four million tons of e-waste go to U.S. landfills each year.

What's the Problem?

- The electronics we buy don't last very long
- Electronic equipment contains many toxic materials
- More e-waste is thrown in the trash than recycled
- Toxic components and poor design make e-waste hard to recycle
- Most recyclers export the products to developing countries with no worker safety or environmental protections

E-Waste is Toxic Waste

- The EPA estimates that in 2008, the U.S. generated 3.1 million TONS of e-waste. But only 14% of that was collected for recycling.
- The other 86% went to landfills and incinerators. Hazardous chemicals in e-waste can leach out of landfills into groundwater. Burning the plastics in electronics can emit the carcinogen dioxin.
- These numbers don't include the millions of computers, monitors and TV's stored in basements, garages, offices.
- Source: EPA Office of Solid Waste, 2009

Sunset Park Recycling Center-Sims Municipal Recycling

sunset park sims recycling cent

Sims Municipal Recycling - Sunset Park Material Recovery Facility

Directions

1 review

Recycling Center

SAVE NEARBY SEND TO YOUR PHONE SHARE

472 2nd Ave, Brooklyn, NY 11232

simsmunicipal.com

Gowanus Bay
Sims Municipal Recycling - Sunset...
South Brooklyn Marine Terminal
Micro Center
25 St
Green-Wood Cemetery
Gowanus Expy
4th Ave
5th Ave
GREENWOOD
Industry City
Bush Terminal Piers Park
36 St
278
Melody Lanes
45 St
Google
Map
Sign


NYCEDC
STOP
5

Sims Municipal Recycling Tour in Sunset Park, Brooklyn

History of Sims Recycling Center

- Sunset Park MRF was built on top of what used to be the 11 acre NYPD impound lot.
- Ground consists of four feet of recycled glass and stone leftover from the Second Avenue Subway project.
- The first stage of the recycling process, islands in a parking filled in with bits of the same recycled glass and stone found beneath the facility.
- The Sunset Park MRF services barges, trains, and trucks to accommodate as much import and export of recyclable materials as possible.
- When a vehicle enters and exits the facility, it gets weighed to calculate the exact material exchange.
- Trucks drive into the back of the facility where materials are dropped off. In the receiving bay, massive amounts of plastics, metals, and glasses are dumped, which get pushed into a conveyor system much like a funnel for the rest of the facility. Barges pull into a slip parallel to the receiving bay, where their weight is measured by the displacement of water. It is then unloaded.

Processing

- After the materials go through the initial Primax Shredder, they make their way into the main sorting room: a mass labyrinth of conveyor belts, drum magnets, optical sorters, ballistics separators.

- Looks like something out of a science fiction movie.

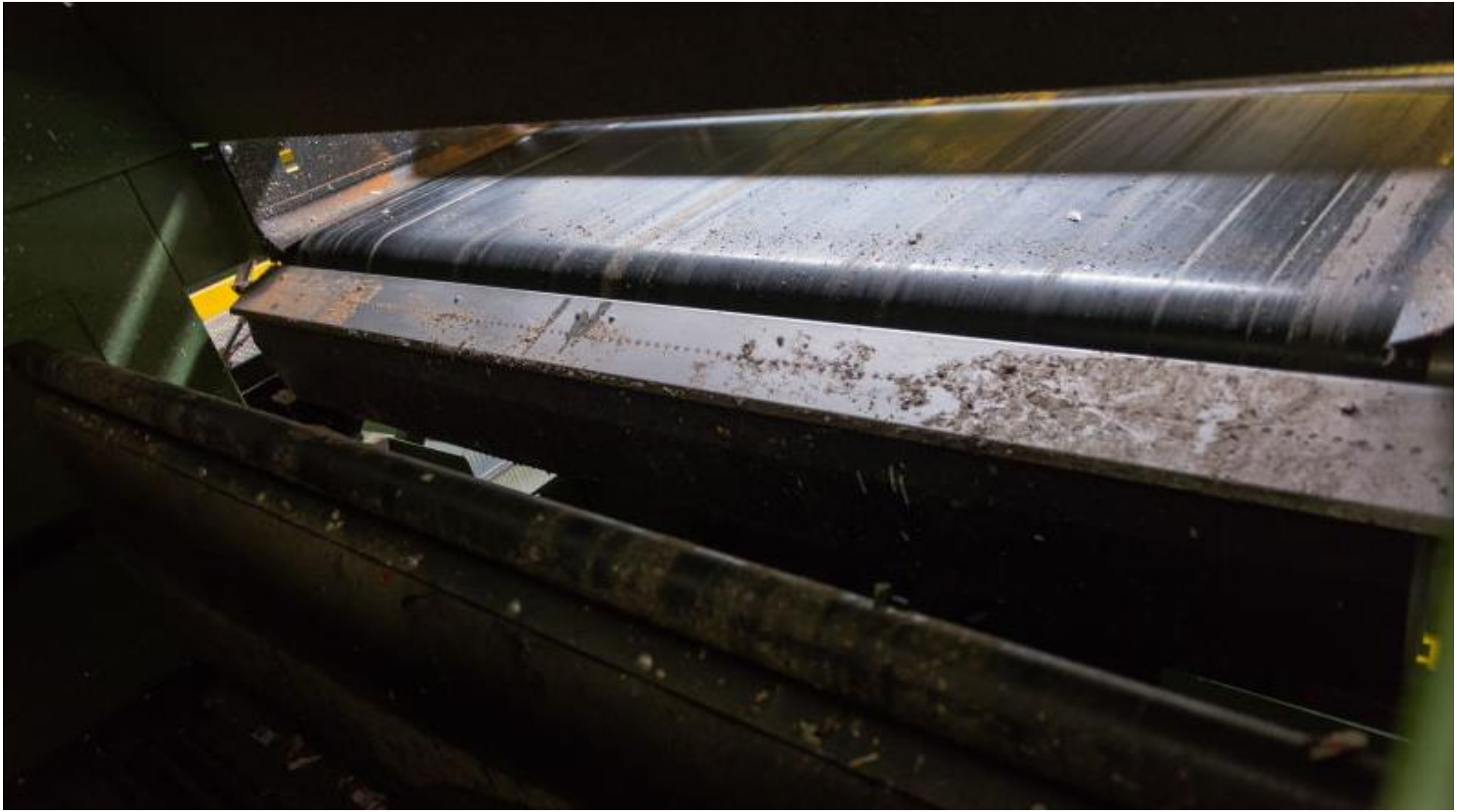
- Recycleable materials travel vertically, horizontally, back and forth between different sensors and sorters before they end up neatly packed in cubes.


EXIT

Some of the recyclables make their way to Drum Magnet Separators made by Steinart company. Only the metal picked by the magnet get separated by the rest of the waste. The drum magnets are strong enough to lift entire bedframes that somehow make their way.

Ballistics Separators from Stadler are able to tell cardboard and paper from the rest of the materials. The machine is completely enclosed in a shipping container-type box and the only way to see inside was through a level-activated peep hole like you would find in a submarine.

There is also several Titech Optical Sorters that use sensors to detect whether plastic, glass, or other materials pass through it and uses blasts of air to push them into certain containers for further sorting.



The massive drum shaped machine removes tin cans from the rest of the materials and sends them to a baler.

Some conveyor belts sent materials directly outside to be baled and made easily ready for pickup by train.

Baling and Pickup

- Specific materials end up into specific containers after the sorting process.
- Containers dump their cargo onto a conveyor belt that feeds into a baler.
- The baler takes loose recyclables and packs them into cubes.
- Cubes are sold to different clients depending on what the cubes are made of.
- Some random objects still get through after all the sorting and shredding is done.
- Bales are stored in a holding facility until tractor-trailors come an pick them up.

Sources

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Thank You!