

“Calling All Cell Phones . . .”: Collection, Reuse, and Recycling Programs in the US

Presented by **Eric Most**
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About INFORM

- 28-Year Non-Profit Organization
- Key Environmental Areas:
 - ◆ Chemical Hazards Prevention
 - ◆ Sustainable Transportation
 - ◆ Solid Waste Reduction



Cell Phones - Quantity

- Use: 340,000 subscribers in 1985;
154 million subscribers as of 1/2004
- Over 100 million cell phones per year
will be retired in the US by 2005
- Approximately 50,000 tons of cell
phones waste per year



Cell Phones - Quantity

- Average Lifespan = 18 months
- Emergence of “Smart” Phones
 - ◆ Internet and E-mail
 - ◆ Calendars
 - ◆ Photo, Video and Music
Options



Cell Phones - Toxicity

- Persistent and bioaccumulative hazardous
substances
 - ◆ Antimony, arsenic, beryllium, cadmium,
copper, lead, nickel and zinc
- Brominated flame retardants
- Batteries
 - ◆ Nickel, cadmium, cobalt



Waste Reduction Strategies

- Incorporate “Extended Producer
Responsibility” or take-back
provisions in contract.
- Establish cell phone collection
programs for used cell phones.



Extended Producer Responsibility (EPR)

- Extended Producer Responsibility is defined as “the extension of the responsibility of producers for the entire product lifecycle, and especially for their take-back, recycling, and disposal.”
- Manufacturers are held physically or financially responsible for products when consumers are done with them.

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Key US Cell Phone Collection Programs

- The Wireless Foundation/Donate a Phone
- Verizon's Hopeline Program
- AT&T Wireless
- CollectiveGood
- Charitable Recycling

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Key US Cell Phone Collection Programs

Since early 1999:

- Collected over 2.5 million used phones
- Donated 40,000 phones to individuals in need
- Raised over \$6.5 million for charity



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Cell Phone Collection Programs

- Only a tiny fraction of wireless waste collected – *therefore, minimal impact on wireless waste*
 - ◆ 2.5 million phones during a period where hundreds of millions of phone were retired
- Public awareness limited
- Minimal promotion



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Methods of Collection

- 1) Permanent collections at retail stores (e.g., Sprint, AT&T and Verizon)
- 2) Short- or long-term phone drives
- 3) Collections at large events (e.g., football games)
- 4) Direct shipment by donors to program



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Case Studies

- Verizon: SF gov't agencies partnership collected 3,000 cell phones in 2001. CO gov't agencies collected 1,200 to 1,500 phones in 2002.
- Sprint: One-day Federal agency collection in 2003 collected hundreds of cell phones.
- Business Collections: Thousands of phones collected via business partnerships.

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Cell Phone Collection Programs – Shipment of Phones Abroad

- Over two-thirds of refurbished phones end up abroad
 - ◆ Latin America
 - ◆ Asia
 - ◆ Africa
 - ◆ Eastern Europe



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Cell Phone Collection Programs: Impediments to Reuse/Recycling

- Impediments to Refurbishment
 - ◆ Durability of phones
 - ◆ External parts
 - ◆ Internal software
- Impediments to Recycling
 - ◆ Ease of Disassembly
 - ◆ Toxics
 - ◆ Mixed contents (e.g., plastics)



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More Information Available About Electronic Waste on INFORM's Web Site:

www.informinc.org

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