

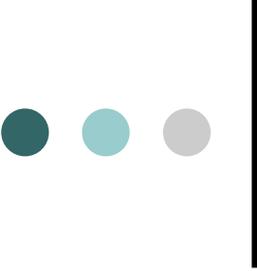
# Responsible Recycling Practices for Electronics

## Recyclers

Thea McManus

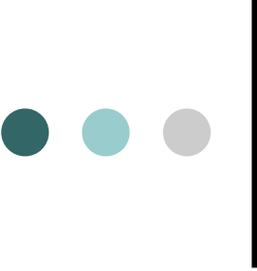
US EPA

Federal Environmental Symposium-  
WEST



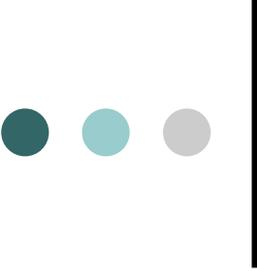
# Coverage

- E-Waste: electronic equipment includes computers, peripherals, cell phones, televisions
- Materials getting specific attention include
  - Cathode Ray Tubes
  - Circuit boards
  - Batteries
  - Items containing mercury/PCBs



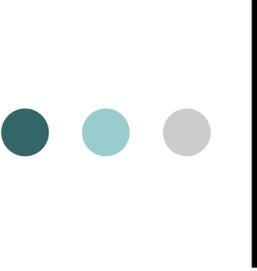
# Environmental Concerns-

- Landfilling has limited risk but limited value
- Reuse and Recycling have significant environmental benefits
- Safe recycling is essential to achieving these benefits.



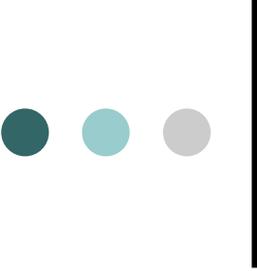
# Collection, Reuse and Recycling of Used Electronics

- Not all used equipment collected by a recycler is hazardous waste, or even waste.
- Organizations sending used electronic equipment to recyclers are not waste generators, unless they require incineration/landfilling or destruction of the equipment.
- A recycler's output might include:
  - Used and unused products
  - Recyclable Commodities
  - Wastes requiring special handling or disposal



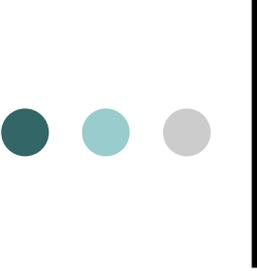
# Implications

- Don't arrange for disposal of equipment - find an opportunity for reuse or recycling!
- Responsible Recycling Practices for Electronics Recyclers are on the way.
  - Will create a market mechanism that enables “responsible recyclers” to distinguish themselves.
  - Will help you locate a “responsible recycler”



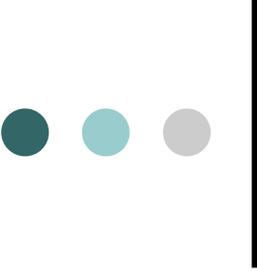
# Some regulatory requirements for recyclers

- Cathode Ray Tubes – CRT rule requires recyclers to provide
  - one time notification of export for reuse, and
  - notification and consent for recycling.
- Universal Wastes- hazardous wastes with special controls to facilitate treatment and recycling
  - Include lamps and mercury devices, and certain batteries
- States may have different and more stringent requirements
- Other nations may have more expansive definitions of hazardous waste, and restrictions on imports.



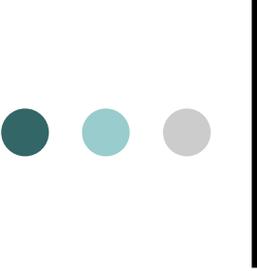
# The Impetus for Responsible Recycling Practices

- Various voluntary standards do not have wide acceptance
- Some standards emerging under State e-waste laws
- No established method for assuring conformity with these standards
- Contrary to rumor, EPA does not certify recyclers of electronics.
- Priority issue at EPA National Meeting



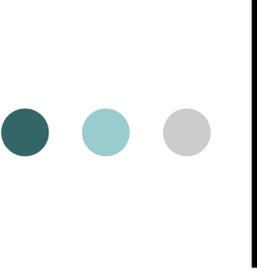
# Status of Responsible Recycling Practices for Electronics Recyclers

- EPA sponsoring multistakeholder effort for developing R2 practices, and a process for assuring conformity
  - Recyclers will volunteer to be certified as being in conformance with practices
- Progress:
  - 17+ drafts with multistakeholder and public input
  - Review by experienced auditors
  - Field testing occurs over the summer



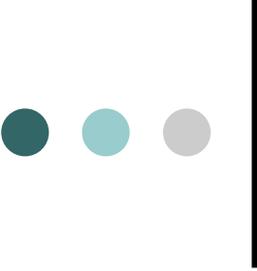
# Overarching Concepts

- Voluntary Program
- Primary Focus is on Human Health and the Environment
- EPA will not direct implementation
  - Multistakeholder recycler practices
  - Use of “third party” auditors and certifying bodies
- Draft includes general principles and specific R2 practices



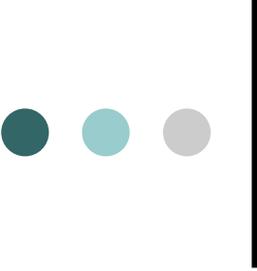
# Draft Principles

- Environmental, Health and Safety Management System Is Needed
- Reuse and Recycling are preferred over disposal
- Electronics Recyclers Must Comply with Existing Federal, State, Local and International Requirements



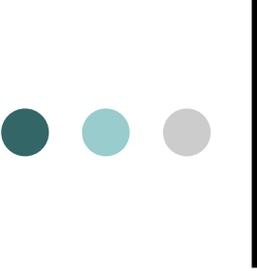
## Draft Principles (2)

- On-Site Health and Safety
- Refurbishing, Testing and Packaging of Materials going to reuse
- Business Records for Tracking Throughput



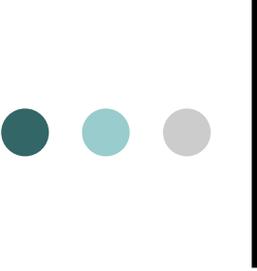
## Draft Principles (3)

- Focus Materials: a set of materials that merit special management attention and downstream due diligence
- Exports:
  - must conform with laws of importing countries
  - Recyclers can request EPA to help obtain documentation.



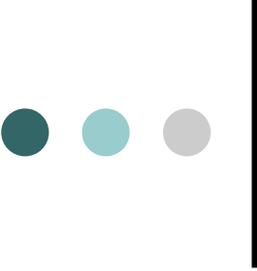
# Draft Principles (4)

- Data Destruction:
  - destroy or sanitize unless directed in writing
- Storage:
  - protect from threats to public health and worker safety
- Facilities Security
  - Security program to control access



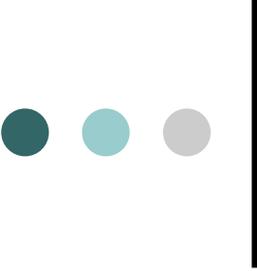
# Draft Principles (5)

- Insurance, Closure Plan and Financial Responsibility
- Transport
  - Regulatory compliance and protection of health and environment
- Recordkeeping
  - Maintain at a single location



# Next Steps

- Anticipate further revisions to the draft practices, reflecting field testing and remaining issues
- “Third-party” organizations will take on role of certifying conformance with standards.
- Challenge: what is the appropriate level of oversight?
  - Auditors, certifying boards, recordkeeping



# Points of Contact

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