

Responsible Recycling Practices (R2)

Steve Fishman

US EPA Region 7

Kansas City, KS 66101

913 551 7158

fishman.steve@epa.gov

What does R2 Bring to the Table?

- Standard so you can evaluate a vendor
- These aren't legal requirements
- They don't replace vendor legal obligations

What are the R2 Practices

- Stakeholder effort to develop one set of practices
- The R2 Standards are based mostly on environmental, worker safety and public health practices
- Includes 13 general principles and specific practices

What does R2 Cover

- E-Waste” computers, peripherals, printers, faxes, cell phones and crts
- Focus Materials:
 - Cathode Ray Tubes
 - Circuit Boards
 - Batteries
 - Items containing mercury or PCBs

R2 Recommends

- Environmental, Health and Safety Management Plan
 - Written Goals
 - Plan – Do – Check – Act Model

End of Life Policy

- What is the vendor's business plan for end of life of your electronics?
 - Reuse?
 - Recovery?
 - Energy Recovery or Disposal?

Legal Requirements

- Has the recycler identified focus materials, those with potential hazards, in the EHS Plan?
- What is their and your export policy?
- If they export is their documentation that a non-OECD country legally accepts such shipments?

The United Nations University's Solving the E-Waste Problem (StEP)

■ Arizona University Study

- 85% of computers imported into Peru went to reuse
- 80% of PCs sent to Ghana, Nigeria and Pakistan for re-use were trashed.

■ Study Recommendation

Globally standardized policies and practice in the management of E-Scrap.

On-Site Environment, Health and Safety

- Worker Safety
- Good Housekeeping Standards
- Structural Conditions
- Administrative Controls

Focus Materials

- Identification
- Management Plan

Reuse

- Testing Procedures
- Down Stream Vendors

Tracking

- Records
- Retention Time

Data Destruction

- NIST Guidelines – Special Publication 800-88
- Document
- Employee Training
- Review by Third Party

Storage

- Security
- Environmental Concerns

Facility Security

Appropriate for the equipment they handle and
customers they serve

Financial Responsibility

- Adequate Insurance

- Written plan and sufficient financial assurance to assure proper closure.

Transport

- Are there written packing and shipping guidelines?
- If the recycler provides the transportation, check the regulatory authorizations for the states they transverse.

Record Keeping

- R2 electronics recycler shall maintain, in a single location the documentation to assess its conformity of the R2 requirements.

Monitors - The CRT Rule

- Intended to encourage recycling
- Rule is a conditional exclusion: if the rule is complied with, CRTs can be handled as non-waste
- Non Compliance may constitute a RCRA violation

Processed Glass

Not Regulated if destined for CRT glass manufacturer or lead smelter

No Speculative Accumulation

No notification needed for export

Export Requirements

- Export for recycling/de-manufacturing

- Export for Reuse/Refurbishment

CRT Rule Contact

- Marilyn Goode
703 308 8800
goode.marilyn@epa.gov

Accreditation for Responsible Recycling Certification Program

- As of July 27, 2009, The ANSI-ASQ National Accreditation Board is offering accreditation for companies certifying recyclers of electronic equipment under R2 .

Link to Your Copy of R2

<http://www.epa.gov/osw/conserves/materials/eycling/r2practices.htm>