

Consumer
Technology
Association™



CTA.tech

Walter Alcorn
April 27, 2017
EPA SMM Webinar

Consumer Technology Association

- Represents more than 2,200 companies in the U.S. consumer electronics industry
- Membership includes component suppliers, device manufacturers, retailers, distributors and service providers
- Owner and producer of CES
- Technology innovation and highly competitive markets drive rapid product evolution

Evolution of Video Display Technologies and Materials

1940's – 2000's

CRTs



Leaded Glass

1990's – 2010's

Plasma TVs



Lead, Arsenic*

2000's – 2014

CCFL LCD TVs



Mercury

2010's – Present

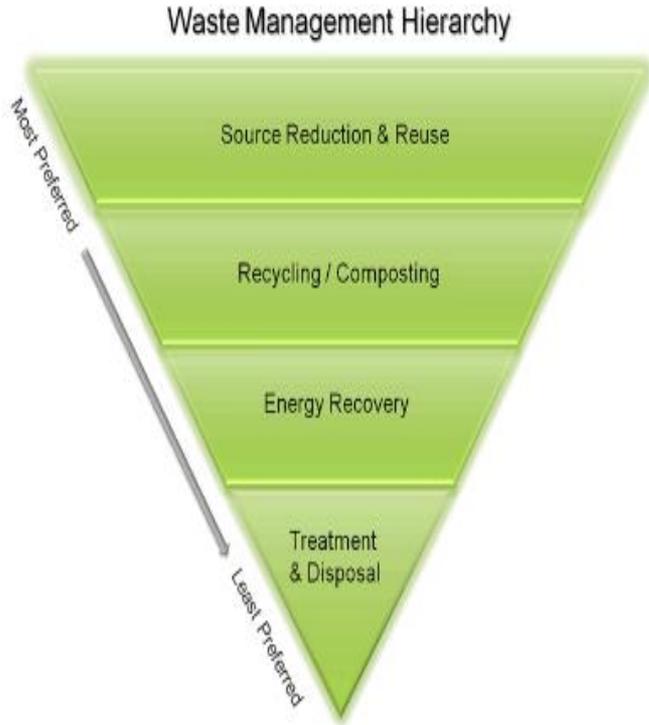
LED LCD TVs



All metals below
TCLP levels

*For plasma displays see: <http://www.ncbi.nlm.nih.gov/pubmed/25976487>

The U.S. EPA Waste Management Hierarchy



- Consumer electronics are now a declining portion of the municipal waste stream
- Source reduction (SR) opportunity for consumer electronics: lighter, smaller devices
- Government policy should encourage SR, and avoid pushing resources down the WMH

Industry Materials Management History

- Materials in consumer electronics is the research focus of Phase I of the RIT Golisano Institute for Sustainability
- Major materials management issues:
 - On recycling, our industry has been the guinea pig for state-level extended producer responsibility policy
 - Currently spending about \$125 million/year on recycling
 - Reuse markets for mobile devices has exploded
 - Landfilling/disposal of consumer electronics has decreased
- Less visibility for changes in product material amounts and types of materials used
- Economic and technological forces driving material changes