

# Allentown Site Permits

- Hazardous Waste Recycling Permit (Part B)
- PA DEP Minor Source Determinations for Air Systems
- PA DEP General Storm Water Permit (NPDES)
- City of Allentown POTW Permit



# Facility Information

- Property and facility owner / AERC
- 41,130 square feet
- 3.2 acres / 1.5 active
- Zoning / Light Industry
- Security / Facility electronically monitored
- Hours of operation / 24-7
- Allentown facility processes over 5.1 million lamps per year, resulting in the recovery of over 400 lbs. of mercury annually



# Lamp Recycling Process

**WASTE FLUORESCENT LAMPS**

**LAMP CRUSHING DEVICE**

**COMPONENT SEPARATOR**

**Hg**

**POWDER**

**THERMAL  
RETORT**

**Al**

**METAL**

**Hg (99.999%)**

**Calcium Phosphate**

**GLASS**

**RECYCLE**

**RECYCLE**



# AERC LSS1 Lamp Recycling Equipment



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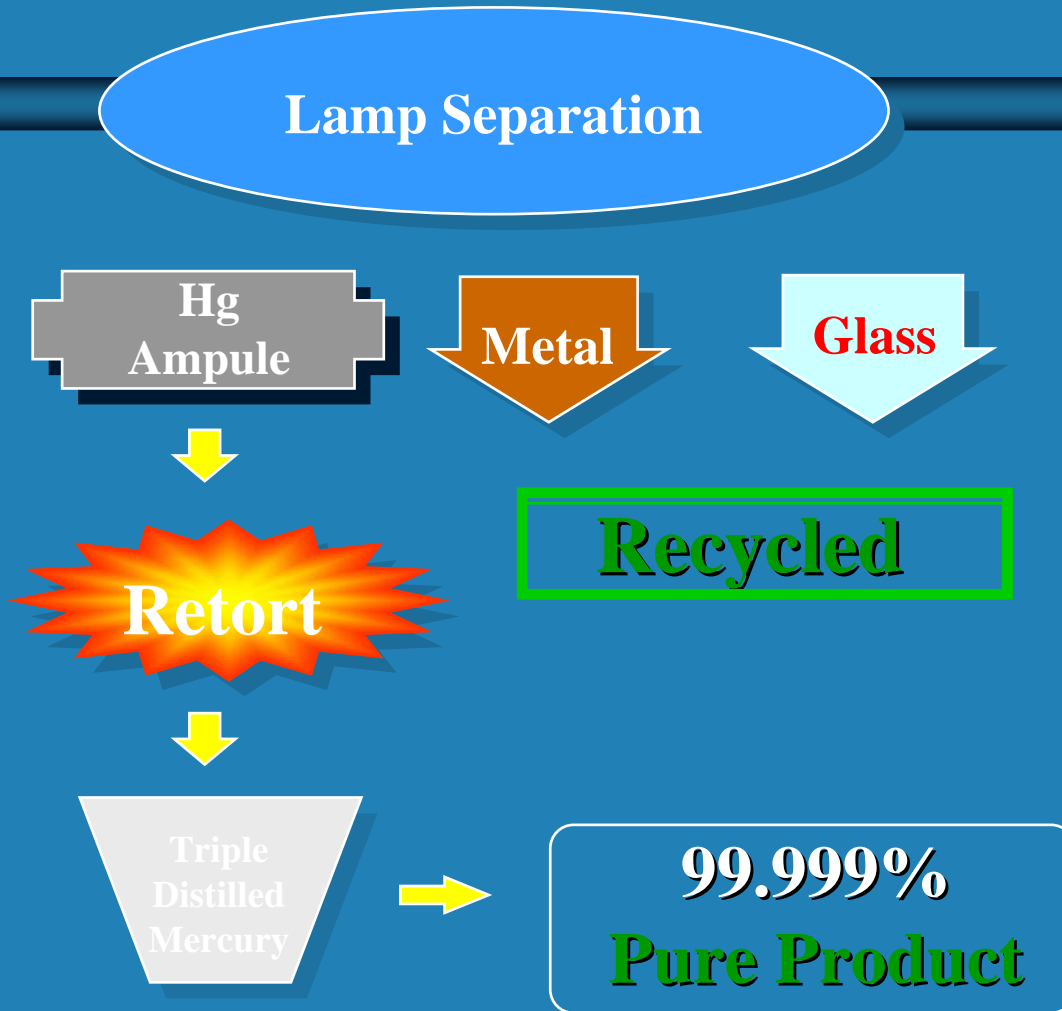




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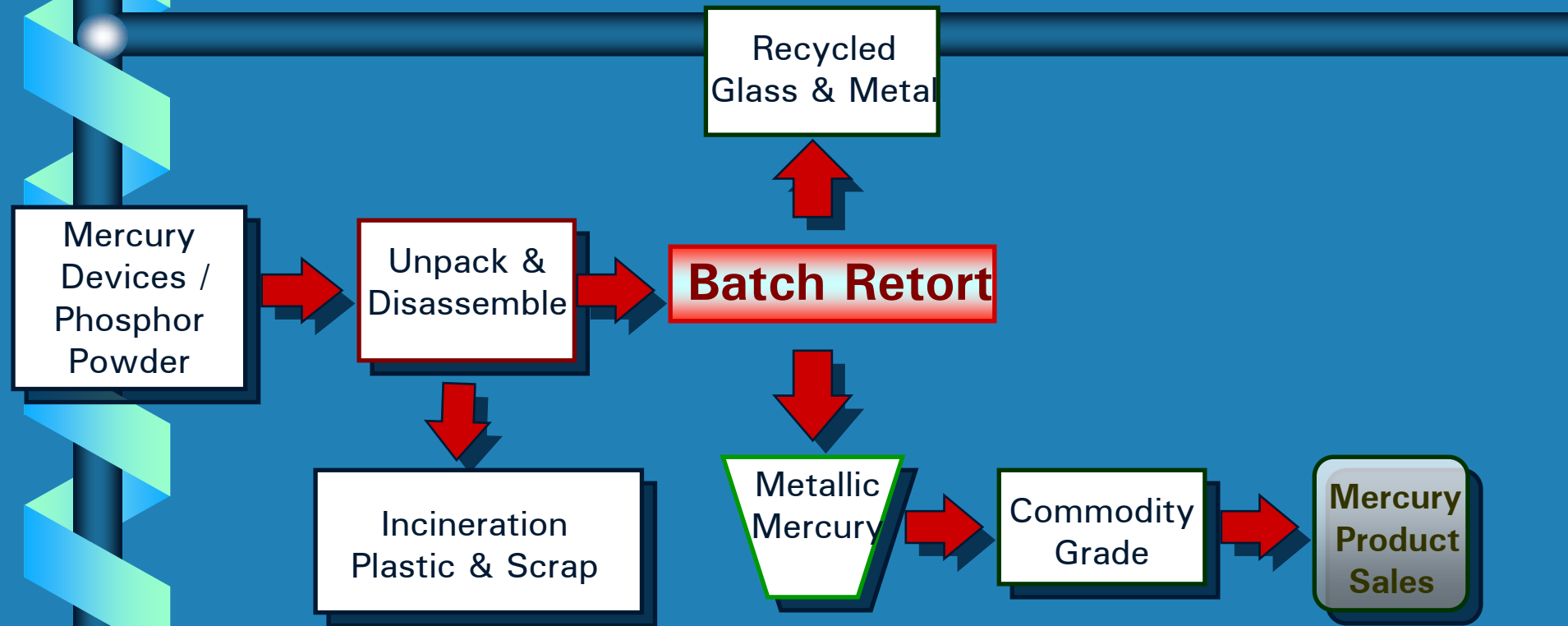
# HID Bulb Recycling Process



# Co product Management Use of Recovered Components

- Glass - Used in Manufacturing Road Asphalt, Fiberglass and Reflective Paint
- End caps / Metals – Sent for Metal Recycling
- Mercury – Purified and Sold as Product
- Phosphor Powder – Has been used as Flux, Strip Mine Stabilization Agent - Still Looking for Outlets

# Retort Processing



RECYCLE



# AERC Thermal Retort System



# AERC BATTERY RECYCLING

## *GOALS & OBJECTIVES*

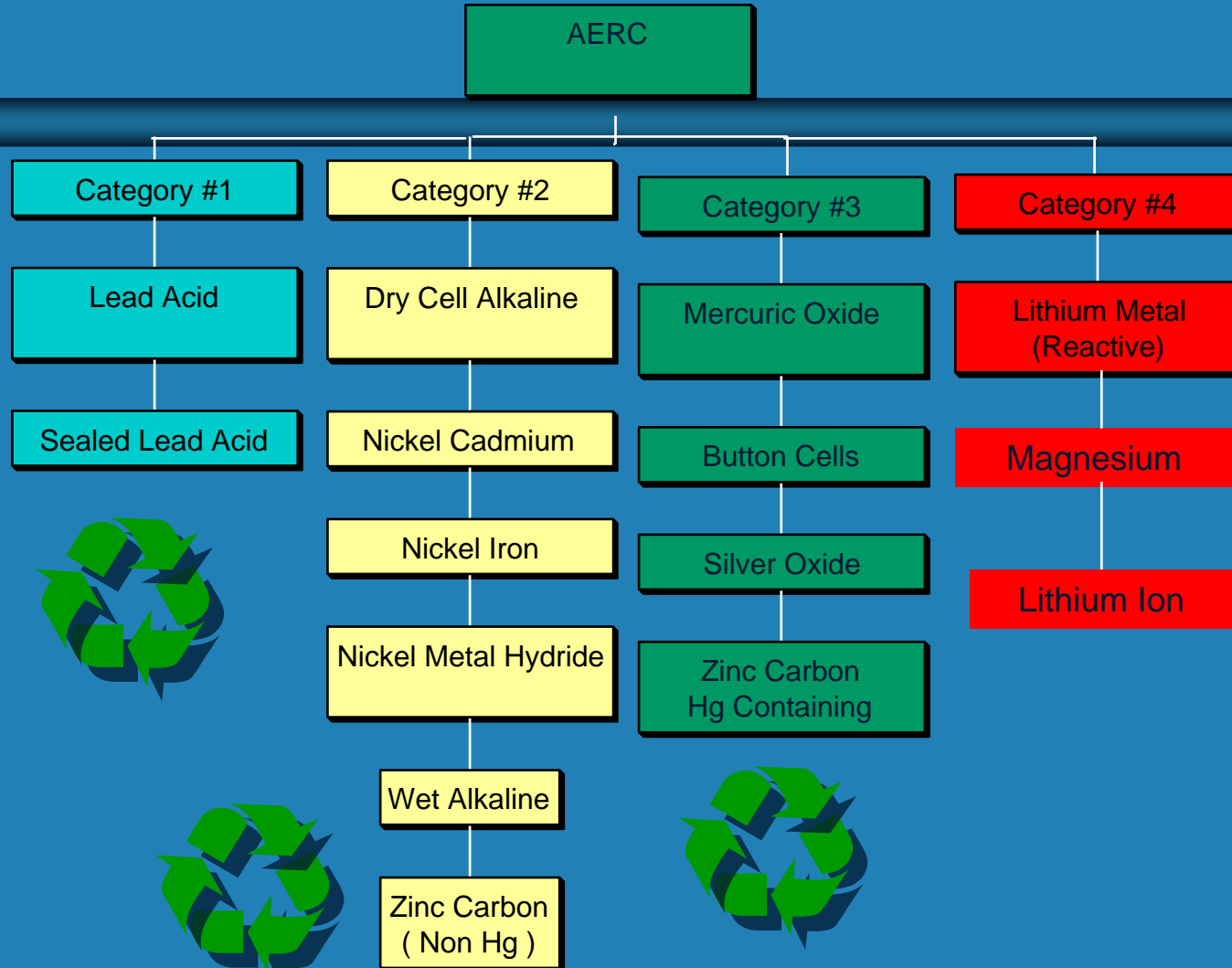
- Comprehensive
- Convenient
- Compliance
- Cost effective

## *AERC METHODS & PRACTICES*

- Accepting *All* battery types
- USDOT compatible & BOL shipment - *Universal Waste*
- Identification & sorting systems - *Manufacturer Codes*
- Single source service - *AERC*



# AERC BATTERY RECYCLING



# AERC E-Waste Program Features

- Acceptance of all types of electronic equipment
- Asset Recovery Capabilities
- Equipment refurbishment and resale
- Demanufacturing / Destruction Services
- Disassembly
- Harvest Components for reuse
- Hazardous and base metal recovery
- Hazardous Component Management
- No Landfill Policy
- No E-waste shipped outside of United States



# E-waste Acceptable Materials

- Computers
- Computer Peripherals
- VCRs
- Televisions
- Monitors
- Dump Terminals
- Networking Equipment
- Docking Stations
- Servers
- Printers
- Fax Machines
- Telephone Equipment
- Cellular Phones
- Copying Machines
- Microwave Ovens
- Mainframes
- Audio / Stereo Equipment





*AERC*  
*RECYCLING SOLUTIONS*

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