
MERCURY- CONTAINING LAMP

RECYCLING

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PROJECT

2007 ENERGY STAR® Lighting Partner Meeting
March 12-14, 2007

Sponsored by Georgia Power





Brought to you by the Lamp Recycling Outreach Project (LROP) Partners:

The Association of
Lighting and Mercury
Recyclers



The National Electronic
Manufactures Association

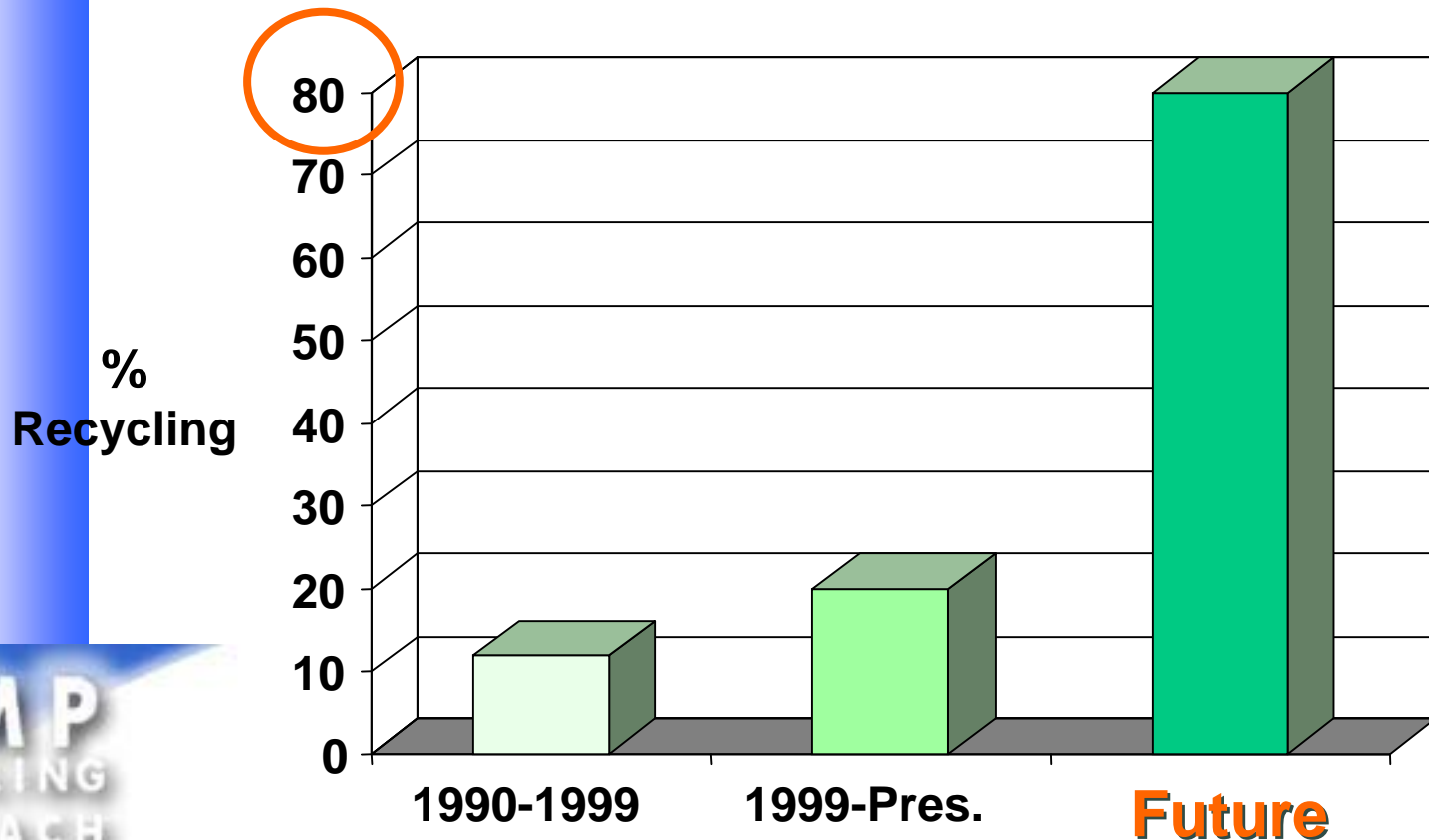


The Solid Waste
Association of North
America



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Historical Lamp Disposal Problem



EPA Goal = 80% Recycling

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Increasing CFL usage

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Many People Handle Lamps

- Janitors
- Maintenance workers
- Truck drivers
- Trash handlers, etc.



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500 million lamps per year Break in the Solid Waste



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Federal Statutes for Lamps

LAW: Resource Conservation & Recovery Act (RCRA) Major federal solid & hazardous waste law

REGULATIONS: Subtitle C of RCRA Regulations

- Imposes strict regulations for disposal of hazardous waste
- Code of Federal Regulations (CFR) 260-279

The Universal Waste Rule

- Part of Subtitle C
 - Code of Federal Regulation (CFR) 273
- Creates alternative to hazardous waste handling when lamps are RECYCLED!
(in addition to batteries, thermostats and pesticides, devices and CRTs)

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See Federal Register Vol. 64, No. 109, p.30434, June 8, 1999

Exemptions from Federal Hazardous Waste Laws

- Residential Households
- Conditionally Exempt Generators (CESQG)
 - Businesses generating no more than 100kg of hazardous waste per month
 - If 4' fluorescent lamps, this could be **350-450** lamps
- Toxicity Characteristic Leachate Procedure (TCLP) Test

Important to Remember!

State Laws- Stringency

- Many states have stricter requirements
 - and have the final word!
- A number of states have banned all mercury products from disposal - no matter what the source

WHAT IS State STRINGENCY?

- In the area of spent lamps, over half of the 50 states have standards that are more stringent. **This is why we encourage you to make sure you know what is required in your state.**
- In the area of hazardous and universal waste management, the EPA has developed minimum standards, which include some exemptions for waste and some for generators.
- While federal policy allows certain mercury-containing lamps to be landfilled, many the states prohibit this.

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The changing landscape



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Recycling Mercury-Containing Lamps is Easy

- Modern facilities & programs exist to safely contain and recover mercury from lamps

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Cost to Recycling Mercury-Containing Lamps

- Pricing is competitive
- Based on volume
- \$0.25-0.50 per lamp for many types
- comprehensive services can be included
- Who pays is big concern for consumer lamps

Lamp Recycling Process

WASTE FLUORESCENT LAMPS

LAMP PROCESSING DEVICE

COMPONENT SEPARATOR

Hg

POWDER

Al

METAL

GLASS

**THERMAL
RETORT**

Hg (99.999%)

Calcium Phosphate

RECYCLE

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Lamp Recycling

- Smaller users:
“box program”
 - container is provided and when full it can be sent to any recycler via ground mail shipment.
 - prepaid program and
 - labels and shipping papers are provided.



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Lamp Recycling Cont'd

- Business users:
 - Pick-ups arranged from the facility, in trailer loads, if needed.
 - Transport lamps to accumulation facilities throughout the country, where they are consolidated for shipment to destination facilities.
 - There are numerous collection locations around the country that ship large quantities of lamps to recycling “Destination Facilities” (state authorized recyclers) every day.

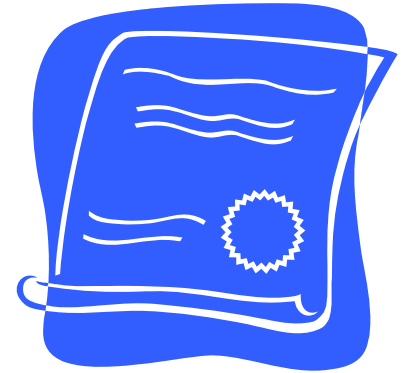
Lamp Recycling Cont'd

- Individuals can also take lamps to any locally operated household waste facility in their community.
- For a list of community programs see www.earth911.org
- This will increase with CFL use

Certificate of Recycling

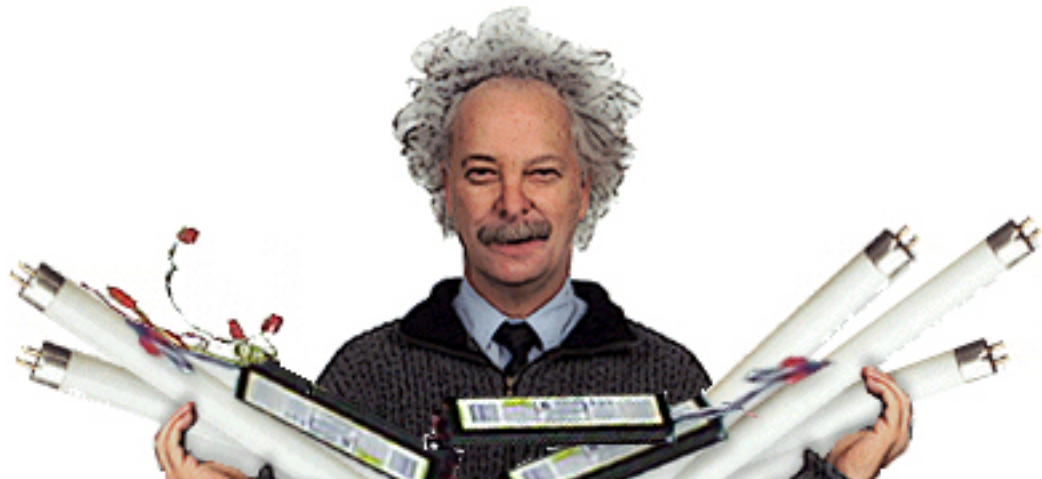
Recycler's Certification

- Total weight material received
- Date
- Confirmation that material was processed "in accordance with all state & federal laws"



Proper Management

- It's easier to properly manage spent lamps than before...
- Nationally, movement is growing to require recycling for all mercury lamps



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Resources

Find just about any information there is

- www.lamprecycle.org
- www.almr.org
- <http://www.epa.gov/epaoswer/hazwaste/id/univwast/index.htm>
- <http://www.earth911.org/master.asp?s=ls&cat=9&serviceid=192&type=-1>

- And each of these has plenty of links with state-specific requirements

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Please
recycle!



Do your part to keep
the mercury from
lamps out of the
environment.

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