



# Fluorescent Tube Recycling

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## INTRODUCTION

Fluorescent lamps are among the most energy-efficient lighting sources available. They use one-quarter of the energy used by incandescent lamps for the same amount of light and last as much as ten times longer. However, they contain mercury, which is toxic and can accumulate in fish and birds when it is released to the environment. When fluorescent lamps are recycled, the component parts can be separated and any hazardous materials can be managed to avoid such environmental contamination.

## REGULATIONS

Nationally, about 600 million lamps go to solid waste disposal facilities, including landfills and solid waste incinerators. In King County, landfills and transfer stations do not accept any mercury-containing lamps.

Rules from the Federal Environmental Protection Agency (EPA), the Washington State Department of Ecology (DOE), and local government (including King County) affect how businesses dispose of used fluorescent lamps. Fluorescent lamps are considered a "Universal Waste" and businesses are required to recycle or dispose of them through a licensed hazardous waste disposal facility.

### Federal - Environmental Protection Agency Universal Waste Rule

EPA states that "universal wastes are usually items commonly thrown into the trash by households and small businesses (such as batteries, thermostats, fluorescent lamps and obsolete agricultural pesticides). Although handlers of universal wastes must meet less stringent standards for storing, transporting, and collecting wastes, the wastes must comply with full hazardous waste requirements for final recycling, treatment, or disposal. This management structure removes these wastes from municipal landfills and incinerators, which provides stronger safeguards for public health and the environment."

### State - Washington Universal Waste Rule for Lamps

Washington Administrative Code: [WAC - 173-303-573 \(5\)](#)

The following types of lamps can be managed as Universal Waste, unless you have information (such as manufacturer material safety sheets) that shows that these lamps are not dangerous waste:

- fluorescent tubes,
- compact fluorescent,
- HID lamps (mercury vapor, metal halide, high-pressure sodium),
- neon lamps; and any other lamps that are dangerous waste.

## Local - King County Waste Acceptance Rule\*

King County's Waste Acceptance Rules (PUT 7.1.4) echo the federal and state level rules:

6.16 Fluorescent lights and ballasts are accepted under the following conditions:

Fluorescent lights and other Universal Waste Lamps are not accepted from commercial customers. Call (206) 296-4466 for information on lamp recycling. Recycling is recommended for all commercial and residential lamps containing mercury, including low-mercury lamps that pass the federal TCLP standard. Low-mercury lamps may be accepted at KCSWD facilities when accompanied by a Waste Clearance Decision.

Fluorescent light ballasts that indicate "contains no PCB's" may be disposed at KCSWD facilities. Ballasts without this information must be tested for the presence of PCB's, and are accepted only with a Waste Clearance Decision.

***\*\*Please note that rules in your area may differ, please check your local jurisdiction for more information.***

## USAGE HISTORY AND EXPERIENCE

King County businesses and residents are now required to recycle products containing mercury, including fluorescent lamps, as they are no longer allowed in the garbage or accepted at transfer stations. King County established a contract for recycling waste lamps, including fluorescent tubes and high-intensity discharge (HID) lamps from its own facilities in 2000. Fluorescent lamps are three to four times more energy efficient than incandescent lamps, and last up to ten times longer. In the long run, fluorescent lamps cost less to use and reduce greenhouse gas emissions. In the past year, the Department of Natural Resources and Parks, Roads Maintenance, Environmental Labs; Facilities Management; Airport; Metro Transit, Public Health; Sheriffs office; Solid Waste Division and the property manager for the King Street Center used the State of Washington contract to recycle various lamps, including 51,100 straight fluorescent tubes, almost 6,200 compact fluorescent lamps, and almost 2,300 HID lamps.

In addition, the Sherriff's office recycled 73,000 pounds of obsolete lighting-circuit ballasts that contained PCBs through this contract.

## BID AND CONTRACT LANGUAGE

King County now uses (as of 2/1/2007) the State of Washington contract for these services:

[State of Washington Contract #11601 - Spent Lighting, Computer and Electronic Equipment Collection, Reuse, Recycling and Disposal Services](#)

[King County Contract #B17964B](#)

## FOR MORE INFORMATION

King County:

[King County Hazardous Waste Program](#)

- [Fact Sheet: Recycling Fluorescent Lamps](#)

[Take it Back Network Fluorescent Lamp Recycling](#)

State of Washington:

[Department of Ecology](#)

[Universal Waste Rule for Dangerous Waste Lamps WAC 173-303-573](#)

Federal:

Federal Register: Vol. 64, No. 128 / Tuesday, July 6, 1999 / Rules and Regulations

- Hazardous Waste Management System; Modification of the Hazardous Waste Program; Hazardous Waste Lamps; Final Rule
- Environmental Fact Sheet-Some Used Lamps Are Universal Wastes

EPA - Office of Solid Waste – Fluorescent Lamp Recycling

"Fluorescent Lamps and the Environment" publication - NEMA

RPN Lighting Guide Summary

## **VENDOR INFORMATION**

King County's Current Contract Vendor:

EcoLights Northwest

Phone: (888) 214-2327 or (206)343-7443

E-mail: Craig Lorch