



Progressive recycling programs for fluorescent lamps available to hotels

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The threat to the environment and increasing government regulations now require hotels to recycle fluorescent lamps. The social mandate to “Go Green” may seem like one more headache for hoteliers and chief engineers, who are typically responsible for creating and policing recycling programs for hazardous and other waste within their lodging properties. However, tackling the complex problem now may very well avert far greater ills, such as stiff fines from regulatory agencies and a tarnished public image.

Dealing with fluorescent lights

Most hotels across the country are finding that they can save energy and money by switching from incandescent to fluorescent lamps in their premises. But while maintaining the “green” status and cutting costs on energy consumption are obviously attractive to any manager, what many might not know is that fluorescent lamps and compact fluorescent lamps (CFLs) can pose environmental hazards if they are not disposed of properly.

Because they contain mercury, spent fluorescent lamps increasingly cannot be trashed in dumpsters as a solid waste. This is a major challenge for hotels across the country since so many use fluorescents for their premises. Over 650 million lamps are disposed each year.

Mercury is linked to severe health issues such as blurred vision, numbness in limbs, speech impairment, severe convulsions, developmental problems, loss of consciousness, insanity, birth defects, possible autism, and more. A single four-foot fluorescent tube contains from five to 50 milligrams of mercury. When conventional disposal methods are used, mercury vapors can travel over 200 miles. Hence, the Environmental Protection Agency (EPA) regulates fluorescent lamps and stipulates strict guidelines for their disposal.

Premises that do not comply with these regulations not only bring harm to the environment, they risk costly restitution. In fact, if fluorescent lamps are found in landfill sites and traced back to the offending parties, they can be penalized with the cost of the landfill cleanup, in addition to any other fines levied. Hence, it greatly benefits all lodging properties to strictly adhere to EPA guidelines and dispose of fluorescent lamps appropriately.

Fluorescent disposal options

Hotels have found such disposal to be both labor and cost intensive, but have endured the burden in an effort to remain compliant. They are faced with the challenge of recycling hazardous waste, which requires storage space, proper containers, and the staff to implement the system. Consequently, these hurdles have caused the marketplace to develop new methodologies. Two new methodologies have greatly simplified the process and reduce the expense for hotels. As a result, fluorescent lamp



Pictured above: The EasyPak pre-paid system makes lamp, battery and ballast recycling convenient and cost-effective. The program provides online access to recycling certificates, shipment tracking, and ordering of replacement containers, and can be set up to have new containers shipped automatically as full containers are received at the recycling centers..

disposal is far easier and less costly than ever before.

One innovative solution to the problem comes from Air Cycle Corporation, an Illinois-based firm that pioneers unique pre-paid services, such as the EasyPak™ Pre-Paid Recycling Program, which allows facilities to ship spent fluorescent lamps and batteries to recycling facilities in UN approved containers. Another alternative, also developed by Air Cycle Corporation, is the Bulb Eater® for large facilities that prefer crushing their lamps on-site prior to having them recycled.

How these systems work

Over 500 Marriott-branded hotels have chosen the Air Cycle programs to provide an environmentally safe process for disposing of their properties' fluorescent lamps. Because these programs afford the hotels an easier and more eco-friendly option to dispose of fluorescent bulbs, it's a great solution in states where regulations are continuously evolving to meet environmental demands.

Several Marriott hotels are equipped with the OSHA and EPA-compliant Bulb Eater®. The device crushes over 1,000 fluorescent lamps (the actual amount depends on the size of the lamps) and packs them into a 55-gallon drum. The process is fully enclosed and filtered, so that the glass, aluminum, and harmful mercury vapors are contained. When the drums become full they are picked up and transported to an EPA-approved lamp recycling facility. These arrangements are all handled by Air Cycle.

Additionally, Air Cycle Corporation offers Marriott services and report management methods, which certify materials have been handled by approved recycling facilities. The reports can be easily audited and are available on a customized, dedicated web-page program that the Illinois-based firm created for Marriott to manage all aspects of its lamp, battery and ballast-recycling plan. This plan helps Marriott remain compliant in all 50 U.S. states where recycling standards and regulations vary.

The other option may be more ideal for limited- or select-service hotels that generally have less storage space available. For one fee, Air Cycle's EasyPak™ pre-paid recycling service includes: storage containers for bulbs, batteries and ballasts, shipping to a recycling center, recycling fees, and a certificate of recycling, which is available via the website. Storage boxes of various sizes can be placed in convenient areas where maintenance engineers can drop off spent fluorescent lamps. Plastic buckets are also provided that can be strategically placed so that spent batteries and ballasts can easily be collected. When the containers become full, Engineering can seal them and they will be picked up by FedEx Ground and taken to a recycling facility.

Marriott has a goal to decrease its environmental footprint by one million tons from years 2000-2010. Last year, Marriott launched a number of initiatives to green its supply chain, seek LEED certification for hotels, and retrofit existing hotels. This year, Marriott International was awarded the Sustained Excellence Award by the U.S. Environmental Protection Agency for excellence in energy management and has been named Partner of the Year since 2004. Its fluorescent lamp recycling program is just one aspect of Marriott's many environmentally sensitive initiatives. For more environmentally-friendly hotels and programs, visit www.marriott.com/environment.

The future for Marriott may include enlisting Air Cycle to help with recycling of electronic hardware, such as computers and calculators. Marriott may also consider using the Illinois firm for its international operations, starting with Canada. This, however, would mean resolving how to transport recyclables across international borders.

Conclusion

Not only is proper fluorescent lamp disposal the right thing to do, also, it is a legal requirement. More and more state and federal regulations are being introduced to make sure that hotels correctly dispose of their lamp waste. Now, "Going Green" with your fluorescents and CFLs has never been easier. ✧

(Scott Beierwaltes is the CEO of Air Cycle Corporation. For more information about fluorescent lamp and CFL recycling, contact Air Cycle Corporation at (800) 909-9709 or visit their website at: www.aircycle.com.)

Pictured right: The Bulb Eater® is for large facilities that prefer crushing their lamps on-site prior to having them recycled.

