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Manufacturer Take Back of Lamps

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Lamp manufacturers support efforts to recycle lamps. Manufacturer collection requirements, however, are not needed to recycle lamps and will increase the cost of recycling and reduce the use of energy efficient lighting. The existing lamp recycling industry opposes manufacturer collection as interfering with efficient collection of spent lamps.

NEMA SUPPORTS LAMP RECYCLING

NEMA established a website, www.lamprecycle.org, that provides a one-stop source for lamp recycling information nationwide. The website contains a list of recyclers as well as links to all state websites with information about spent lamp management. Lamp recyclers and others actively promote the use of this website. NEMA also partnered with the Alliance of Lighting and Mercury Recyclers (ALMR) and the Solid Waste Association of North America (SWANA) to receive an \$800,000 grant from EPA to undertake lamp-recycling promotion for businesses on a nationwide scale. The three groups have established a management committee and are beginning to implement the program. The Federal EPA has additional funding that it plans to make available to States and other organizations to conduct promotion efforts. NEMA and ALMR also developed a lamp recycling training module for the Department of Energy's Rebuild America program. The module is available at no charge from the Department and material from the module will be incorporated into the EPA funded lamp recycling promotion effort. Manufacturers are also labeling lamp packages with information about lamp recycling. Finally, individual companies also have their own lamp recycling promotion efforts.

LAMP RECYCLING IS GROWING

As a result of these and other efforts and adoption of the universal waste rule across the country, lamp recycling increased from 70 million lamps in 1997 to 150 million lamps in 2002. There is a lamp-recycling infrastructure currently in place with unused capacity. We fully expect to see a continued increase in the national lamp-recycling rate each year as a result of the existing nationwide lamp recycling promotion effort.

The current lamp recycling system in the US involves fluorescent and HID lamp customers contracting directly with independent, third party recycling companies. These third-party recyclers compete against each other to offer the best price for recycling all lamps, regardless of the manufacturer. The current system of direct contracting provides

the most efficient and lowest cost approach. Manufacturer collection intrudes on the existing efficient lamp recycling system by requiring that each manufacturer identify and directly fund a collection system for their mercury-containing lamps. By injecting an unnecessary third party (the manufacturer) into the recycling process, manufacturer collection will dramatically increase transaction costs, which will be born directly by businesses, schools, state or local government operated facilities, and other energy conscious consumers.

MANUFACTURER COLLECTION IS BAD POLICY FOR THE FOLLOWING REASONS:

- **It is not needed to ensure high rates of recycling.** The growth in recycling and the high rates of recycling in some states, such as Minnesota, demonstrates this.
- **The current recycling system is very efficient and economical.** It is very economical for businesses and governments to directly contract with third party recyclers for lamp recycling needs. This allows them to get bids from more than one recycler (that they have qualified) assuring that they are receiving lamp recycling services at the most competitive rate. This system also takes immediate advantage of any efficiency improvements in the recycling process because competition rewards efficiency improvements and continually lowers recycling costs.
- **Lamp manufacturer take-back systems would be inefficient and duplicative.** Manufacturer collection replaces the current system with a manufacturer-funded system, which will result in significantly higher recycling costs, as many duplicative and non-competitive systems will be required. There are currently well over 100 manufacturers or importers selling mercury-containing lamps in the US, each of which would be required to individually fund a collection system of some type under a manufacturer collection system. There are even a greater number of companies that sell products that contain lamps.

A MANUFACTURER TAKE BACK SYSTEM WOULD BE VERY EXPENSIVE

- Under a manufacturer take-back system, the manufacturer would have to include administrative overhead to the process, adding significantly to the disposal cost.
- Under a manufacturer take-back system, recycling costs would be charged at the time of lamp purchase, 4 or 5 years before the lamps were actually recycled. This would produce a very expensive recycling system to both businesses and governments because:
 - 1) Recycling costs essentially would be paid 5 years in advance, eliminating use of this money for other investments.
 - 2) Companies and Governments that "pre-paid" for recycling services in the cost of the lamp would not be able to take advantage of any recycling efficiency improvements or pricing reductions during those 5 years.
 - 3) There would be no ability to bid for recycling services between different lamp recyclers.
 - 4) Manufacturers would have to maintain a significant overhead structure to manage recycling issues and would build-in a significant additional overhead charge to the cost of recycling.
 - 5) US Antitrust laws would prevent manufactures from developing a common collection system, with a common disposal fee.

- **Market behavior will quickly escalate recycling costs, leading to increased lamp prices in the state.** With significantly increased initial lamp cost in one state (see side bar), there will be enormous pressure for businesses to purchase lamps from out-of-state. As lamps from out-of-state are disposed in a state with a manufacturer collection system, manufacturers will have to significantly raise the price of remaining lamps sold in the state to pay for these free riders. These greatly increased costs will have an adverse impact on in-state businesses and on state and local government agencies that maintain building lighting systems and provide roadway and security lighting.
- **Government and private sector facilities will incur additional costs.** Over the years, businesses buy lamps from several different lamp manufacturers. Today, all of their lamps are recycled with one pick-up, regardless of the original manufacturer. Under a manufacturer take-back system, in addition to having to pay a high up-front fee at the time of lamp purchase, facilities will incur increased costs related to segregating and storing each manufacturer's lamps for each unique recycling system. Consequently, the new cost of an energy efficient fluorescent lamp following passage of a manufacturer collection requirement will be much higher than the combined cost of a fluorescent lamp and the cost of recycling under the current system.
- **It will reduce the use of energy efficient lighting.** Lamps are a commodity, and as such are very price-sensitive. The cost of recycling large quantities of lamps is approximately 33% of the cost of a commodity 4-foot lamp. Recycling costs for small quantities of lamps is typically much higher *per lamp*. Adding recycling costs in the selling price will increase the cost of the product by a significant amount. This will discourage the purchase of energy efficient lamps. Fluorescent lamps are typically *three to four times* more energy efficient than incandescent lamps. A recent study in California found that energy efficient lighting is responsible for over 73 percent of all energy savings in new California buildings vs. buildings constructed a few years ago. In addition, higher up-front cost is already the major impediment to the use of energy efficient compact fluorescent lighting in homes. The US EPA feels so strongly about the environmental benefits of using energy-efficient lighting that it runs a promotion to encourage the use of mercury-containing lamps every fall – “Change a light – Change the World.”
- **The system of distributing new products cannot be used to transport lamps back for recycling.** Laws governing the transportation of waste are different than regulations governing the transportation of new products. Trucks from distributors of new products are not typically licensed to transport waste. In addition, new product distributors and retailers are usually not licensed to store waste, nor are they familiar with waste transportation or waste disposal regulations. For these reasons, lamp recycling should be restricted to companies that are knowledgeable about disposal regulations for this waste stream.

- **Proponents of manufacturer-takeback sometimes claim to model the European approach to lamp recycling.** However, the EU has not yet implemented such a plan and is now having to confront all the barriers mentioned in this white paper. The EU companies are not saddled with the same degree of anti-trust restrictions in effect in the US regarding collaborative collection arrangements. Nonetheless, it is instructive to note that our European counterparts are proposing to add one Euro (> \$1) to the cost of each lamp to cover recycling at some future date, and the additional administration and reporting that is required. On average that will DOUBLE the wholesale cost of 4ft fluorescent lamps. The equivalent cost in the US under the current competitive system is approximately 25-40 cents per lamp.

LAMP RECYCLERS DO NOT SUPPORT A MANUFACTURER TAKE BACK SYSTEM

“SB511, (a failed CA manufacturer take-back bill) as written, would undermine everything we have done and are doing with the EPA, DTSC and the lamp consumers to increase recycling. It is counterproductive to transfer responsibility for recycling to hundreds of lamp manufacturers, who are not in any way involved with collecting lamps or in the competitive market of lamp recycling. It is not appropriate to require manufacturers to do this kind of planning, and it is especially not appropriate for the DTSC (a state environmental agency) to have review and approval authority for the commerce of lamp recycling. This would be an administrative burden to DTSC and it is not within their capability to judge plans that involve thousands of entities engaged in intra- and inter-state commerce. – Paul Abernathy, Executive Director, Association of Lighting and Mercury Recyclers, Testimony before the California Senate Committee on Environment, April 28, 2003, in opposition to a proposed manufacturer take back requirement.

“Yet, we contend that the fact that the existing and expanding service infrastructure is being underutilized currently for mercury waste is no reason to set up new collection systems by manufacturers. The tools to greatly increase recycling rates are already available without new legislation.” – Barry Jordan, Superior Special Services, Testimony Before the New Hampshire House Natural Resources and Agriculture Committee, March 21, 2001.

“We feel that it would be counter-productive to require manufacturers to establish take-back programs when the system currently in place is working very well. We see a greater problem in states which have not currently adopted the Universal Waste Rule. We also feel that the issue of education and enforcement could have a much more positive effect of capture rated than mandatory take-back programs. We continue to work with state and local governments, as well as lamp generators and lamp manufacturers, to develop the infrastructure needed to make recycling easy and available to everyone.” – Raymond Graczyk, President of Northeast Lamp Recycling, Before Connecticut Joint Natural Resources Committee, Feb. 16, 2001.

CONCLUSION

The current system, where the beneficial user is responsible for lamp disposal is the most cost effective. For the user, the cost of recycling represents only one percent of the total cost of ownership of a fluorescent lamp. The majority of ownership costs are for energy, and a typical fluorescent lamp rewards its owner several hundred times its purchase price compared with what would have been spent on energy, using inefficient incandescent lamps. As the overwhelming financial beneficiary in the manufacturer-distributor-user chain, there is a strong case for lamp users/owners to continue to fund their own recycling and negotiate their own contracts with the existing infrastructure of lamp recyclers.

A manufacturer take-back system would be the most costly of all alternatives and create enormous inefficiencies and unintended consequences. NEMA recommends using the existing infrastructure to recycle lamps. States will need to assist in educating users about disposal requirements, enforce existing laws, and adopt the Federal universal waste rule to ease collection and transportation of spent lamps. NEMA companies are undertaking a number of programs to encourage recycling. In addition, NEMA can assist education through lamp and package labeling and information dissemination through the www.lamprecycle.org website.