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Mayor

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Director

September 10, 2007

Mr. Alex Baker
ENERGY STAR Lighting Program Manager
US Environmental Protection Agency
1310 L Street, Suite 933 Washington, DC 20005

Dear Mr. Baker:

The City and County of San Francisco respectfully submits the following comments on the proposed mercury-content and labeling requirements for the Final Draft of the ENERGY STAR Residential Light Fixtures Specification Version 4.1.

We support a cap on the amount of mercury in compact fluorescent lamps (CFLs); however, we believe that the ENERGY STAR standard should go farther in addressing mercury issues. We are very concerned at the low rates of CFL recycling recorded to date, at a time when CFL sales are increasing dramatically. (According to one NEMA report, only 2% of mercury-containing lamps are recycled in U.S. households: http://www.nema.org/lamprecycle/docs/ALMR_capacity_statement.pdf). While the contribution of CFLs to total mercury load may be small when compared to coal-fired power generation, it is an *avoidable* source of this priority pollutant. And since California law now requires that mercury-containing lamps be treated as hazardous waste (40 CFR 273: http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=dc7bdbb06d3cb13743f2e05fe35e3e98&tpl=/ecfrbrowse/Title40/40cfr273_main_02.tpl), the question now becomes more stark: Who will pay for CFL recycling, and how can it be accomplished most efficiently? Without manufacturer or retail take-back programs in place, public CFL recycling programs have shouldered the cost burden of recycling.

With hundreds of millions of CFLs and other mercury-added lamps being manufactured for sale in the US, it is important that ENERGY STAR make every effort to minimize the unintended consequences of mercury and lead pollution at fluorescent lamp manufacturing plants and disposal sites. Adding more stringent mercury reduction requirements to the ENERGY STAR standard will also give local governments and other entities more confidence in the ENERGY STAR ecologo and encourage us to more readily promote the use of ENERGYSTAR-qualified products as truly “environmentally preferable”.

We encourage the ENERGY STAR program to make the following revisions to this standard in order to better protect human health and the environment:

1. Set lower mercury caps. The maximum mercury content proposed for the ENERGY STAR program is at levels that have already been adopted by the National Electrical Manufacturers Association (NEMA), which, with its 430 members, represents companies that offer a substantial portion of the CFLs in the US marketplace. While we applaud NEMA for agreeing to this voluntary limit, we believe the ENERGY STAR program should encourage manufacturers to make further mercury reductions or reward those that have already made progress

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beyond the levels mentioned in the voluntary agreement. While the proposed mercury “caps” will encourage other non-NEMA manufacturers to meet the NEMA voluntary standard, we are concerned that this mercury “ceiling” is likely to become the new “floor” since industry is not being given any incentive for continuous improvement. ENERGY STAR is missing the opportunity to drive technological improvements.

Furthermore, the maximum mercury content that ENERGY STAR is proposing is higher than those adopted by environmental labeling programs in other countries. For example, Canada’s Environmental Choice EcoLogo Program only certifies CFLs as “environmentally preferable” if they have mercury content under 3 mg. (See http://www.environmentalchoice.com/images/ECP%20PDFs/CCD_014.pdf). This standard is now accepted worldwide by the Global Ecolabeling Network (see <http://www.gen.gr.jp/cgi-bin/gen.pl?type=no&val=1900>). While the EU only allows CFLs to be sold in Europe that have a mercury content of 5 mg or less, in September 2002 it established a more stringent cap of 4 mg for CFLs to qualify for its ecologo and promises to upgrade its standard periodically. (See http://eur-lex.europa.eu/LexUriServ/site/en/oj/2002/l_242/l_24220020910en00440049.pdf.) *It is worth nothing that from a mercury reduction perspective reducing the mercury cap from 5 mg to 3 mg is equivalent to increasing the CFL recycling rate by 40%.*

Wal-Mart has already adopted more stringent mercury content standards, in combination with requiring clean production techniques. . In May 2006, Wal-Mart announced that it had negotiated new contracts for low-mercury CFLs sold through its stores and Sam’s Club. All CFLs offered will be ENERGY STAR-qualified. In addition, according to the Wal-Mart news release, “To reduce the amount of mercury in its CFLs, Wal-Mart worked closely with its manufacturers GE, Royal Philips, Osram Sylvania and Lights of America. All four suppliers committed to achieving a greater reduction in mercury content than the 5 mg standard set by the National Electrical Manufacturers Association (NEMA) earlier this year. These suppliers will also adhere to clean production techniques that will minimize mercury pollution from factories manufacturing CFLs.”

Wal-Mart’s supplier commitments include the following:

GE Consumer & Industrial will reduce CFL mercury content up to 50 percent from NEMA levels in new products, while maintaining the excellent light quality and long life that GE customers expect.

Philips currently supplies Wal-Mart with CFLs that have mercury contents 40 to 60 percent below the NEMA level of 5 mg per unit (for CFLs less than 25W). Philips utilizes pellet dosing to ensure safe and accurate levels of mercury per bulb, and continues to look for ways to reduce the amount of mercury in its CFL, while still maintaining the lamps' high quality and performance characteristics.

Osram Sylvania CFLs currently meet the NEMA standard of 5 mg of mercury, with reflector lamps that are 40 percent lower at 3 mg. Sylvania has committed to reducing the mercury content in all of its CFLs to 4 mg or less by the end of 2007, and to 2.5 mg by the end of 2008.

Lights of America will reduce the amount of mercury in its CFLs by up to 50 percent. Wal-Mart's new standards have resulted in Lights of America identifying a different metal alloy technology that improves bulb performance while requiring less mercury per bulb. This technology is currently being added to Lights of America CFLs and the company expects all of its bulbs to have no more than 2 mg of mercury by the end of 2007.

(Source: News Release: “Wal-Mart Announces Major Mercury Reduction in Compact Fluorescent Light Bulbs,” May 10, 2007, <http://www.prnewswire.com/cgi-bin/stories.pl?ACCT=104&STORY=/www/story/05-10-2007/0004585479&EDATE=>).

2. Verify that a higher 6 mg cap for CFLs with wattages of 25-40 watts is necessary. NEMA has asserted that it needs to have a higher mercury maximum on CFLs with wattages above 25 watts, but it has not demonstrated that the higher mercury content is necessary from a technological basis. In fact, standards established in Canada and the EU do not make an exception in their mercury caps for higher-wattage CFLs. The ENERGY STAR program should require manufacturers to submit independent test data about the mercury content of their lamps and then establish a mercury cap that approximately half of the models can meet.

3. Establish a maximum mercury content level for CFLs over 40 watts. The current standard does not address CFLs with wattages above 40 watts, although models such as 42-watt and 57-watt CFLs are used frequently by government agencies and businesses. Again, to determine the appropriate maximum mercury content, the ENERGY STAR program should require manufacturers to submit independent test data about the mercury content of each of their qualified lamps and then establish a maximum mercury cap that approximately half of the models can meet.

4. Require the use of precision dosing technology. Traditional mercury- dosing technologies, based on the manual use of droppers, are prone to spills that could lead to chronic mercury exposure among workers in lamp manufacturing plants. Several new technologies have emerged over the past several years, such as automated encapsulated technologies, that are safer for workers and the environment. In addition, because automated dosing techniques are precise, they can also ensure that lamps will consistently meet the maximum mercury levels proposed.

5. Require better labeling of CFLs so consumers can choose low-mercury models. The proposed labeling of CFLs for mercury content is inadequate because it lists only the presence of mercury, not the amount—which would give consumers the information they need to effectively compare models and choose those with the lowest mercury content.

The City of San Francisco, which has formally adopted the Precautionary Principle, believes that transparent reporting of toxic chemical content – including mercury and lead – is critically important for consumers who are interested in making informed decisions about their purchases. We also believe that the burden to supply this information lies with the manufacturer, not with the general public. Pursuant to this policy, we require all lamps contractors to provide “full disclosure to the satisfaction of the purchaser, of the amount of mercury or range of mercury in milligrams, for each mercury added product sold.”

6. Require documentation of mercury content. Manufacturers should be required to do more than stipulate that they meet the NEMA voluntary mercury standard. They should be required to submit independent test data verifying the mercury content of each CFL model. This would not only guarantee that each product meets the proposed standard, it would also help inform the ENERGY STAR program so that it can establish cutting-edge mercury standards in the future. There is no reason why the verification of mercury content should be any less stringent than the verification of performance requirements for which manufacturers are required to submit third party documentation.

7. Establish mercury caps on fluorescent lamps used in exit signs and other residential and commercial lighting fixtures. None of the other specifications for residential or commercial lighting fixtures yet address mercury content. A similar approach should be taken whenever a mercury-added product is qualified under the ENERGY STAR program; manufacturers should be required to submit independent laboratory documentation about the mercury content of their products and ENERGY STAR should use this data to establish maximum mercury content levels that reward industry leaders.

8. Establish longer lamp life minimum for CFLs. Encouraging the use of long-life lamps is another way to prevent mercury pollution associated with their manufacture and disposal. Both Canada's and Europe's ecologo programs have established minimum rated life standards of 10,000 hours, which is stronger than ENERGY STAR's 6,000-hour rated life minimum. While some CFL models are not available with a rated life above 6,000 hours, ENERGY STAR could increase the lamp life of those types (such as bare spirals) for which there are long-life options widely available. The ENERGY STAR website notes that "the current average rated lifetime for ENERGY STAR qualified CFLs is 8,000 hours." (See http://www.energystar.gov/index.cfm?c=cfls.pr_crit_cfls).

9. Require ENERGY STAR-qualified CFLs to submit information about the lead content of their lamps. Some CFLs contain lead, another potent neurotoxin and priority persistent bioaccumulative toxin (PBT), in their base solder and glass. The proposed environmental specification for CFLs should identify which models contain lead so that consumers can easily find lead-free brands.

10. Require manufacturers of ENERGY STAR-qualified lamps to offer a "takeback" program. No product takeback requirement exists for CFLs in the final draft. The proposed labeling program, which simply "codifies" the voluntary fluorescent lamp labeling requirement that are currently in place, will therefore do little to improve the (abysmally low) recycling rate of CFLs in the United States.

By requiring the industry to participate in the development of a lamp recycling infrastructure, the ENERGY STAR program can help dramatically increase the recycling rate of CFLs and other mercury-containing lamps and take the burden off of community household hazardous waste collection program, which are unable to handle this burden on their own. We believe that the lighting industry needs to step up to the plate to contribute in a meaningful way toward solving the problems associated with the disposal of mercury from CFLs and other types of fluorescent lamps.

11. Provide more guidance to consumers about how and why they should handle and recycle spent CFLs and other mercury-containing lamps and fixtures (such as exit signs). The proposed labeling requirement would carry more weight with consumers if it explained to them what mercury is and why it should not be thrown into the regular trash. The proposed language, which simply says "Lamp Contains Mercury" and "Please Recycle Where Facilities Exist" is likely not to motivate many people other than those who are already familiar with mercury's hazardous nature. The label could also help prevent unnecessary exposure by providing additional warnings such as encouraging consumers not to clean up a broken bulb with a vacuum cleaner and to ventilate a room after a breakage.

We look forward to further dialog with the US EPA, the Department of Energy, and the ENERGY STAR program staff about further steps it can take to advance the use – and recycling – of environmentally preferable CFLs and other fluorescent lighting equipment.

Sincerely,



Jared Blumenfeld
Director