

**King County  
Product Stewardship  
Programs and Strategies**

**Report**

**June 12, 2002**

**Submitted to:  
King County Council  
Regional Policy Committee**

**Submitted by:  
King County Solid Waste Division**

# King County Product Stewardship Programs and Strategies

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## Introduction

King County Ordinance No. 14236, which provided policy direction for the Final 2001 Comprehensive Solid Waste Management Plan (Plan), directed the King County Solid Waste Division (Division) to submit the following information to the King County Council by June 2002:

*Transmit to the regional policy committee and the council a report outlining how the county is implementing product stewardship programs and strategies.*

This report represents the Division's response to the Council.

The Plan places an increased emphasis on development and implementation of product stewardship strategies. Four governing policies in the Plan provide direction to the Division for product stewardship programs:

***WRR-16.*** *The county should provide technical assistance to manufacturers in the use of recycled materials and the application of product stewardship principles. (Page 2-22)*

***WRR-28.*** *The county should develop and implement a regional product stewardship strategy, provide technical assistance to manufacturers in the use of recycled materials and the application of product stewardship principles. (Page 2-22)*

***WRR-29.*** *The county should pursue product stewardship strategies to reduce costs of waste disposal, to place more responsibility on manufacturers to reduce toxicity of their products, to conserve energy, and to plan for product reuse and recycling in product development. (Page 2-22)*

***CP-12.*** *The county should work with the cities, regional businesses, and regional manufacturers to develop alternative collection opportunities and product stewardship programs. (Page 2-24)*

For the full text of Plan directives relating to product stewardship, see Appendix A.

In this report, we will address the following topics:

- The definition of product stewardship and its basic principles
- The importance of product stewardship to King County
- The criteria used in selecting targets for product stewardship
- The Division's current targets – electronic scrap and products containing mercury – and our twofold strategies for developing product stewardship for these products:

- voluntary agreements with industry hammered out in coordination with local, regional and national groups; and
- pilot collection and education programs that support product stewardship principles.
- Division resources allocated to product stewardship
- Potential future targets for product stewardship

## **What is product stewardship?**

Product stewardship is an environmental management strategy that means whoever designs, produces, sells, or uses a product takes responsibility for minimizing the product's environmental impact throughout all stages of the product's life cycle.

The following principles of product stewardship have been widely accepted by product stewardship proponents throughout the United States:<sup>1</sup>

*Responsibility.* The responsibility for reducing product impacts should be shared among industry (designers, manufacturers, and retailers of products or product components), government, and consumers. The greater the ability an entity has to minimize a product's life-cycle impacts, the greater is its degree of responsibility, and opportunity, for addressing those impacts.

*Internalize Costs.* All product lifecycle costs – from using resources, to reducing health and environmental impacts throughout the production process, to managing products at the end-of-life – should be included in the total product cost. The environmental costs of product manufacture, use, and disposal should be minimized, to the greatest extent possible, for local and state governments, and ultimately shifted to the manufacturers and consumers of products. Manufacturers should thus have a direct financial incentive to redesign their products to reduce these costs.

*Incentives for Cleaner Products and Sustainable Management Practices.* Product stewardship policies and programs should create incentives for the manufacturer to design and produce "cleaner" products – ones made using less energy, materials, and toxics, and which result in less waste (through reduction, reuse, recycling, and composting) and use less energy to operate. These policies should also create incentives for the development of a sustainable and environmentally-sound system to collect, reuse, and recycle products at the end of their lives.

*Flexible Management Strategies.* Those that are responsible for reducing the health and environmental impacts of products should have flexibility in determining how to most effectively address those impacts. The performance of responsible parties shall be measured by the achievement of goal-oriented results.

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<sup>1</sup> Principles were developed by the Product Stewardship Institute, with input from King County and the NW Product Stewardship Council. See Appendix B for summary of organizations associated with product stewardship.

*Roles and Relationships.* Industry should provide leadership in realizing these principles. Government will provide leadership in promoting the practices of product stewardship through procurement, technical assistance, program evaluation, education, market development, agency coordination, and by addressing regulatory barriers and, where necessary, providing regulatory incentives and disincentives. Industry and government shall provide – and consumers should take full advantage of – information needed to make responsible environmental purchasing, reuse, recycling, and disposal decisions.

## **Why is product stewardship important to King County?**

There are three main reasons why King County is interested in promoting product stewardship:

- Reducing the cost to local government of waste disposal
- Reducing product toxicity
- Increasing resource conservation

Throughout the United States, it is generally local government's responsibility to ensure that residents and businesses within their jurisdictions have environmentally sound and efficient solid waste collection and disposal options. Since the mid-1980's, King County, under the guidance of its Comprehensive Solid Waste Plan, has implemented policies to minimize waste disposal through waste reduction and recycling programs. Through the Local Hazardous Waste Management Plan (LHWMP), King County has also implemented programs to collect and properly handle moderate risk waste from households and small quantity commercial generators.

King County's recycling programs have been highly successful in providing cost effective alternatives to disposal for a number of recyclable materials. However, there are other products and materials for which no adequate recycling infrastructure has been developed – in large part because the manufacturers of the products have put little thought into what happens to the product after its useful life is over. For example, electronic products are often made from a multitude of materials. Many of the materials are not recyclable and may be toxic. Those materials that are recyclable may be uneconomical to separate because the products are not designed to be disassembled. And because end-of-life costs are not a manufacturer's responsibility, there is little incentive for a manufacturer to design products that are durable or do not quickly become obsolete.

We are now in an era where local government resources are extremely limited. Product stewardship provides a way to reduce the potential cost to our ratepayers for handling the cost of spent products by placing more responsibility on manufacturers to design products that can be disassembled for recycling and to give forethought into how spent products should be collected.

## How targets are selected

There is no one-size-fits-all approach to implementing product stewardship practices. Each product type uses different natural resources, has different distribution systems, and has different environmental impacts during its useful life and at the end of its life cycle. To help assess which specific products were priorities for King County, the Division considered the following criteria<sup>2</sup>:

- There is a significant quantity of the product in the disposed waste stream.
- The cost of handling and disposal of the product is significant.
- The product is toxic throughout the lifecycle of the product.
- There is potential for voluntary action by industry with relatively easy implementation and a clear product chain-of-custody.
- There is potential for mandatory action or legislative support.
- There is potential to join with other regions or states, European, Canadian, or other worldwide product stewardship efforts.
- There is interest by both private and public sectors.
- There is consumer interest in improving management of the product.
- There are stakeholders located in the Pacific Northwest.

Based on these criteria, the Division has selected the following products as its principal targets in 2002 and 2003:

- Electronic equipment
- Mercury-containing products

In future years, other products will be targeted for product stewardship initiatives.

## Electronic Equipment.

### Background

Electronic equipment, in this context, means computers and peripherals, including CPUs, monitors, keyboards, and mice; output devices such as printers, fax machines, and copiers; and televisions. It does not include home appliances such as radios, toasters or refrigerators.

Why is electronic scrap (e-scrap) such a problem? Consider the following:

- A survey of King County households in January 2002 found that 29% have computers they are no longer using – up from 21% in 2001. 18% have a TV they are no longer using.
- Computer monitors and TVs with cathode ray tubes (CRTs) contain 3 to 8 pounds of lead, which could potentially leach into surface and ground water. King County Solid Waste Division transfer stations do not accept computer monitors from commercial

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<sup>2</sup> These criteria were developed through discussions by the Northwest Product Stewardship Council, which applies the criteria for prioritizing regional product stewardship efforts.

customers unless they can provide evidence that they do not designate as hazardous waste.

- Seattle and Snohomish County bar “household” and “small-quantity generator” hazardous waste from municipal trash. King County accepts household hazardous waste at Cedar Hills landfills, but actively encourages residents to seek other alternatives.
- There are no CRT recycling facilities in this region. CRT glass-to-glass recycling facilities are located in Pennsylvania and Ohio. Other facilities that accept CRTs for recycling are lead and copper smelters located primarily in the midwestern and eastern states and Canada. It is expensive to ship the CRTs to these locations for recycling.
- Many local brokers collect CRTs and send them overseas. It is difficult to determine what becomes of these materials. In an investigative report by the Basel Action Network, *Exporting Harm: The High Tech Trashing of Asia*, researchers found that much of the CRT material sent to a village in China is dumped in rivers and waterways. More research is needed to determine if this is a common "recycling" practice throughout China and other countries that import these materials. The report is available at [www.ban.org](http://www.ban.org).
- Disposal of monitors containing CRTs may increase as users switch to flat screen liquid crystal display (LCD) monitors. Because of the proprietary nature of the information, researchers have been unable to determine the contents of LCD monitors. Therefore the environmental impacts of LCDs have not been determined and there is concern that the chemicals used to develop the crystals may not be appropriate for disposal in a landfill and/or incinerator.
- Disposal of TV's may increase as television broadcasting networks switch from analog to digital signals in 2006. As networks make the switch, viewers will need to replace their analog TVs or buy a set-top box for converting the digital signal.

## Strategy

The Division's strategy for dealing with the growing electronic scrap problem has been threefold:

1. ***Develop partnerships with private sector organizations to provide reuse and recycling options for electronics equipment.*** In 2000, the Division initiated the Computer Recovery Project. The project is a network of local computer repair and resale shops, nonprofit groups, and computer retailers that have teamed up to offer 34 locations for donating, upgrading or recycling used computer equipment. The private sector handles the collection and recycling of the equipment. Consumers pay any costs associated with the recycling of the used equipment. King County provides the publicity through the Computer Recovery Project web site and brochure that is distributed at more than 60 computer retail sales stores, public libraries and government agencies. (See Appendix C for copy of current brochure, or visit website <http://dnr.metrokc.gov/swd/default.shtml>)

As a result of the project, a local recycler, Total Reclaim, Inc., has expanded its business to include the collection and disassembly of computer monitors so that they can be shipped to recycling facilities at a more affordable rate. The monitors are separated into glass, metal, and plastic components that are baled and shipped to domestic processing facilities.

The program has provided an opportunity to educate the participating organizations about environmentally sound recycling practices. Prior to the Computer Recovery Project, many of the organizations used brokers to market the e-scrap overseas. It is not illegal to ship waste materials overseas. However, very little was known about the final fate of these materials. As mentioned above, a recent study has documented cases in which materials are being recycled in China in a manner that shows little regard for human health and the environment.

To be included in the Computer Recovery Project, participating organizations that accept computer monitors (containing CRTs) must agree to use domestic recycling services. This requirement helps ensure that the materials are recycled properly and that documentation on how materials are processed is available. Program promotional materials provide information on the health and environmental impacts of unsound e-scrap recycling, thereby making it more acceptable to consumers to pay \$10.00 to have a computer monitor recycled properly in the United States.

The program is far less expensive than collecting and recycling the electronics scrap at municipal facilities or at collection events. It also reduces the cost to government and places some of the responsibility for managing the materials on the private sector and consumers that benefit from the use of the products.

In 2002, King County, Snohomish County and the City of Seattle are partnering on a pilot program with retailers that sell televisions to collect old ones when new ones are purchased. Manufacturers are being asked to cover the collection and recycling costs in this pilot. Consumers will be asked to pay a small fee to help cover the costs of transportation to the processing facilities.

2. ***Participate in a regional coalition, the Western Electronic Product Stewardship Initiative (WEPSI) to develop consistent product stewardship solutions for electronic scrap.*** WEPSI was established in 2001 to engage the participation of a wide variety of stakeholders in the eight-state western region of Alaska, Arizona, California, Hawaii, Idaho, Nevada, Oregon and Washington. Funds from government grants as well as from non-governmental organizations have been provided to five non-profit organizations to manage the WEPSI project. These grantees are Recycling Advocates, Global Futures Foundation, Materials for the Future Foundation and Silicon Valley Toxics Coalition. The Organizing Committee includes representatives from local government, including King County, non-profit groups and electronic equipment manufacturers.

WEPSI is developing an Action Plan to be released in June 2002 that will provide the

backdrop for a sustainable product stewardship system. The Action Plan will highlight activities that government, industry and non-profit organizations in the West can undertake to catalyze the market and infrastructure for product stewardship and environmentally sound recycling practices.

3. ***Use the regional coalition to help influence outcomes of the National Electronic Product Stewardship Initiative (NEPSI), a national electronic recovery discussion toward product stewardship solutions.*** NEPSI is a national dialogue involving 45 stakeholders and over 30 observers, including all levels of government, manufacturers, environmental groups, recyclers, and retailers. The dialogue was initiated in April 2001 with the goal of developing a voluntary national product stewardship system that will include a viable financing mechanism to maximize the collection, reuse, and recycling of used electronic products. The product stewardship system will also include incentives to design products that result in less waste, are more readily reused and recycled, contain less toxic materials, and are made with recycled materials. The dialogue will also address environmentally sound recycling practices and issues surrounding export of e-scrap for recycling. The specific products being addressed in the dialogue are TVs, computer monitors, CPUs, and computer peripherals such as printers and scanners.

The process is being coordinated by the National Product Stewardship Institute (PSI). The Institute communicates information about each meeting regularly to other member agencies (including King County) through its listserv and conference calls. The local governments from the Northwest are very active in the NEPSI discussions. King County participates in the "Government Group" calls on a regular basis. A representative from Snohomish County is one of the 45 stakeholders at the table representing local governments in the Northwest. The Northwest Product Stewardship Council also has a representative at the table.

A total of six meetings were planned at various locations around the United States. Four meetings have been held and the next meeting is scheduled for June 24 - 25, 2002 in St. Paul, Minnesota. The final meeting is scheduled for September 23 -25, 2002 in Seattle.

At the fourth meeting in Washington DC in March, 2002, the stakeholders agreed to:

- Work toward the development of a front-end financed system that will strive to meet the goals of the NEPSI process and it was agreed that the system may be managed by a third-party organization.
- Work together as part of the NEPSI process to develop draft federal legislation or a consensus about the elements thereof by the end of the September NEPSI meeting that will facilitate the operation of a national front-end financed system.

Announcement of the negotiated agreement is expected at the September 2002 in Seattle. Implementation of the agreement will occur in 2003 - 2005.

## **Future Plans and Programs:**

1. ***Explore local and national legislation.*** If the NEPSI process does not result in a national product stewardship agreement, King County will work with PSI and other local and state agencies to pursue national legislation requiring manufacturers and retailers to participate in a national take back program for electronic equipment from residents.

King County and other agencies of the NWPSC may develop product stewardship resolutions similar to those drafted by local governments in California. A resolution on behalf of the County could urge state legislators to introduce and support legislation requiring computer and electronics producers to operate or fund comprehensive product stewardship programs. The legislation could require that products be sustainably designed and labeled, a financial incentive be created for the proper disposal/recycling of equipment, a convenient collection infrastructure yielding a high rate of recovery be created and require that environmentally sound reuse options are maximized followed by recycling.

2. ***Use purchasing power to influence markets.*** King County and other NWPSC agencies purchase a considerable amount of computer and electronic office equipment. Environmentally preferable purchasing guidelines may be developed to assist purchasers in buying products that consume less energy, contain less hazardous materials, are more recyclable and require take back of the equipment at the end of the product's useful life.
3. ***Implement Parts of the WEPSI Action Plan.*** Once the WEPSI Action Plan is completed, the NWPSC will determine which of the recommended actions should be implemented and how they will be implemented. The actions will be coordinated with any efforts that are being implemented through the NEPSI process.

## **Products containing mercury**

### **Background**

Our second target commodity is products containing mercury. These commonly include fever thermometers, thermostats, fluorescent lamps, relay and tilt switches (found in many appliances, irons and space heaters), batteries, automotive switches, high intensity discharge lamps, toys, jewelry, electronics, manometers, and blood pressure cuffs.

In King County, we estimate that between 7,200-8,700 pounds of mercury are contained in the following products.

- Fever thermometers: King County homes contain between 300-330 pounds of mercury.
- Thermostats: King County homes contain 4,400 pounds of mercury. King County businesses contain 1,000 pounds of mercury.

- Fluorescent lamps: King County homes and businesses contain 730 pounds of mercury.
- Automotive switches: King County vehicles contain between 700-2,150 pounds of mercury.

Local and state policymakers across the United States are becoming increasingly concerned about the health risks presented by mercury. The Washington State Department of Ecology (Ecology) and Oregon Department of Environmental Quality have targeted mercury as the top persistent, bioaccumulative toxic (PBT) substance for action to reduce exposures.

Ecology is developing a mercury chemical action plan to reduce mercury exposure and provide recommendations for further action. The Oregon Environmental Council convened a broad group of stakeholders to form the Oregon Mercury Solution Team. This team has developed strategies to eliminate the release of mercury by the year 2020.

The NWPSC, which includes King County staff, will participate in the development of Ecology's mercury action plan and support PBT efforts by participating in mercury projects that complement the states' efforts.

Mercury is especially challenging because it is a basic element and cannot be destroyed. Once released into the environment, mercury circulates easily between air, water and soil.

Exposure to mercury – most often from eating contaminated fish – can result in serious health problems. Mercury affects the brain, kidneys and liver and can damage the central nervous system, especially during fetal and childhood development. Women of childbearing age, unborn babies, and young children are most vulnerable. Other exposure comes from inhaling mercury vapors from broken thermometers, or spilled or leaked from devices like thermostats or auto switches. Dental amalgam used for filling teeth also commonly contains mercury, although opinion is divided as to whether there is any human health threat from this usage.

Mercury fish advisories have been issued for 11 water bodies in Oregon, including the entire mainstem of the Willamette River, and four in Washington, including Eagle Harbor and Lake Whatcom. Both states have issued health advisories warning women of childbearing age and children under six not to eat any shark, swordfish, tilefish, king mackerel, or tuna steaks, and to limit consumption of canned tuna. (For details, see <http://www.ohd.hr.state.or.us/esc/fishadv.htm> and [www.doh.wa.gov/fish/FishAdvWomen.htm](http://www.doh.wa.gov/fish/FishAdvWomen.htm) )

Product stewardship requires everyone who makes, sells, buys or handles products containing mercury to be responsible for minimizing environmental impacts at all stages of the products' life cycle. For manufacturers, this means:

- Avoid using mercury in extraction and production.

- Design products that are mercury free.
- Take back products containing mercury.
- Develop environmentally sound collection systems.
- Support development of technologies and strategies to permanently retire mercury.
- Incorporate the costs for these practices in product prices.

Some manufacturers and retailers are addressing the issue. The mercury content in some products, including fluorescent lamps, has been reduced. Cost-effective mercury free alternative products (e.g. thermometers, thermostats, medical devices, and automotive and other switches) are readily available. There has also been industry participation in developing take back programs. However, a number of mercury-containing products on the market have no collection system in place and are not designed so that the mercury can easily be captured. For example, automobile recyclers have actively lobbied automakers to discontinue use of mercury in switches because of the potential health impacts to workers and contamination of other recovered materials.

## **Strategy**

The Division's strategy for reducing exposure to mercury includes the following elements:

### **Current activities 2002/2003:**

#### **1. *Keeping mercury out of municipal solid waste.***

King County Solid Waste Division, as part of the Local Hazardous Waste Management Program, manages household hazardous waste collection and education programs to keep mercury and other toxic wastes out of the waste stream. We accept products containing mercury at the Wastemobile and the City of Seattle accepts them at their two household hazardous waste collection sites. We also educate small business owners about waste reduction and proper disposal and provide on-site visits to provide technical assistance.

Some jurisdictions, including Seattle, Snohomish County and Kitsap County (WA) prohibit household hazardous and small quantity generator wastes from regular garbage. King County facilities only prohibit small quantity generator waste and petroleum products (motor oil, gasoline, diesel, etc.), oil-based paint, wood preservatives and banned or restricted-use pesticides, even in household quantities. See Seattle's ordinance (SMC 21.36.025,026,029) at [www.cityofseattle.net/](http://www.cityofseattle.net/).

#### **2. *Partnering with others on collection programs.***

- King County staff are promoting manufacturer take back programs, like the Thermostat Recycling Corporation's (TRC) program, that collects used

thermostats. Staff are working to recruit additional drop-off sites for thermometers. ([www.nema.org/index\\_nema.cfm/664/](http://www.nema.org/index_nema.cfm/664/))

- Staff are conducting two pilot projects to exchange mercury fever thermometers for non-mercury thermometers to educate residents about the environmental and health risks of mercury. Partners include retailers, hazardous waste haulers, local governments and manufacturers.

**3. *Promoting the use and recycling of fluorescent lamps.***

- Staff will continue promoting the use and recycling of spent fluorescent lamps, including compact fluorescents, to King County residents and businesses. Fluorescent lamps contain mercury but help to conserve energy because they use approximately one-quarter of the energy of incandescent lamps and last much longer. This reduces the amount of mercury released from power plants. A list of lamp recyclers can be found at <http://www.metrokc.gov/hazwaste/fluor/>

**4. *Participating in statewide action plan development.***

- The Washington State Department of Ecology is developing a mercury chemical action plan to reduce mercury exposure and provide recommendations for further action. The NWPSC is a participant on the advisory committee. <http://www.ecy.wa.gov/programs/eap/pbt/pbtfaq.html>

**Future activities:**

**1. *Using purchasing power to influence markets.***

- We will require King County vendors and contractors to recycle mercury-added switches, thermostats, fluorescent lamps and other products and replace them with readily available mercury-free alternatives.
- We will specify the use of mercury-free products (thermostats, gauges, and switches) in King County building and remodeling projects.

**2. *Prohibiting the sale of certain mercury-containing products in King County.***

- The Local Hazardous Waste Management Program in King County will request that the King County Board of Health pass an ordinance banning the sale of mercury fever thermometers. Links to similar ordinances and resolutions can be found at [http://www.noharm.org/index.cfm?page\\_ID=14#local](http://www.noharm.org/index.cfm?page_ID=14#local)

**3. *Supporting product stewardship legislation.***

- Seven other states, including Washington, considered legislation during 2002. Washington's bill (SB 6533), likely to be reintroduced in 2003, would have established manufacturer responsibility for managing products containing mercury. If similar legislation is reintroduced in 2003, we plan to support it.

- Ten states including Oregon and California have adopted legislation restricting sales of mercury-added products, phasing out the use of mercury, requiring labeling of mercury-added products, and/or requiring proper disposal, recovery and management of products containing mercury. For Oregon’s Mercury Reduction Act of 2001 (HB 3007), see [www.leg.state.or.us/01reg/measures/hb2800.dir/hb2816.intro.html](http://www.leg.state.or.us/01reg/measures/hb2800.dir/hb2816.intro.html)
- Maine recently became the first state to pass a law (LD 1921) requiring manufacturers to pay for removal of toxic components from their products and banning the sale of autos containing mercury switches by the end of 2002. Similar bills are pending in several other states. For information, see [www.cleancarcampaign.org/mercury.html](http://www.cleancarcampaign.org/mercury.html).

## Summary of King County Resources Allocated to Product Stewardship

The concept of product stewardship is incorporated into many of the Division’s waste reduction and recycling educational programs. In Table 1 below, we list only those Division programs that are primarily focused on promoting product stewardship. See Appendix B for descriptions of the product stewardship coalitions in which Division participates.

**TABLE 1:  
RESOURCES ALLOCATED TO KING COUNTY  
PRODUCT STEWARDSHIP PROGRAMS**

<b>Program</b>	<b>FTE’s</b>	<b>O &amp; M Budget</b>
Electronics Recovery Program	.50	\$60,000
Mercury Program (funded by Local Hazardous Waste Management Plan) <ul style="list-style-type: none"> <li>- Mercury Education &amp; Outreach</li> <li>- Thermometer Exchanges</li> <li>- Thermostat Exchanges</li> <li>- NW Product Stewardship Council Mercury Committee</li> </ul>	.25	\$70,000
Coalition Support and Coordination <ul style="list-style-type: none"> <li>- Steering Committee membership of NW Product Stewardship Council</li> <li>- Representation in National Electronic Product Stewardship Initiative negotiations</li> <li>- Sponsorship of Western Electronic Product Stewardship Initiative process</li> <li>- Membership in Product Stewardship Institute</li> </ul>	.35	\$35,000
<b>Total</b>	<b>1.10</b>	<b>\$165,000</b>

## **What's on the horizon: potential future targets**

In upcoming years, we expect the Division's participation in regional and national coalitions to bear fruit as we become able to implement programs negotiated between industry and governments elsewhere in the country. Two products in particular show promise:

**Carpet.** A national agreement has been signed by the carpet industry, several state governments, the U.S. Environmental Protection Agency, and non-governmental organizations. The agreement promotes product stewardship for carpet by asking manufacturers to assume responsibility for funding the overall effort and meeting the goals for reuse and recycling. The agreement sets forth national goals to significantly increase the amount of reuse and recycling of post-consumer carpet over a ten-year timeframe. By 2012, the parties plan to achieve a landfill diversion goal of 40%. These goals can be viewed as steps toward fulfilling a long-term commitment by the carpet industry for the eventual elimination of land disposal, incineration, and incineration with energy recovery (waste-to-energy) of waste carpet.

The carpet industry has created Carpet America Recovery Effort (CARE) to meet the goals of the agreement. The group, with members from the carpet industry and government, will be jointly responsible for monitoring, evaluating and assessing progress toward goals. This "third-party organization" will be funded and administered by the carpet industry.

King County will seek opportunities to work with CARE in upcoming years to help promote their efforts to recover post-consumer carpet.

**Paint.** The Product Stewardship Institute had developed a Draft Product Stewardship Action Plan for Surplus Paint. The primary goal of this plan is that manufacturers and retailers assume some financial and/or physical responsibility for collecting and recycling surplus paint, or properly disposing of surplus paint that cannot be reused or recycled. The Washington State Department of Ecology had designated staff to help coordinate this process. King County through the Local Hazardous Waste Management Program will be participating in this process.

# APPENDICES



## APPENDIX A

### ***Final 2001 King County Comprehensive Solid Waste Management Plan: Product Stewardship Policies, Findings and Recommendations***

*From Governing Policies, Chapter 2 (adopted by King County Council in Ordinance 14236):*

**WRR-16.** The county should provide technical assistance to manufacturers in the use of recycled materials and the application of product stewardship principles. (Page 2-22)

**WRR-28.** The county should develop and implement a regional product stewardship strategy, provide technical assistance to manufacturers in the use of recycled materials and the application of product stewardship principles. (Page 2-22)

**WRR-29.** The county should pursue product stewardship strategies to reduce costs of waste disposal, to place more responsibility on manufacturers to reduce toxicity of their products, to conserve energy, and to plan for product reuse and recycling in product development. (Page 2-22)

**CP-12.** The county should work with the cities, regional businesses, and regional manufacturers to develop alternative collection opportunities and product stewardship programs. (Page 2-24)

*From Waste Reduction, Recycling and Market Development Chapter, Issues section (pages 4-25 – 4-26):*

#### **Product Stewardship**

Product stewardship is a principle that directs all who come in contact with a product during its life cycle to minimize the impacts of that product on the environment. This principle applies to designers, suppliers, manufacturers, distributors, retailers, consumers, recyclers, and disposers. Everyone shares in the responsibility.

There are four primary reasons for instituting product stewardship policies in King County:

- Lost resources, including energy and raw materials
- Increasing amounts of garbage
- Rising costs to ratepayers for managing waste materials
- Potential harm from exposure to toxic materials used in products

Currently, manufacturers have little incentive to design products that minimize environmental impacts. Product stewardship encourages manufacturers to think differently about resources and materials, so that toxicity reduction, energy conservation, reuse, and recycling are considered at the product design stage. By placing greater

responsibility on manufacturers and purchasers, product stewardship can also reduce the costs to government and citizens for pollution control, energy usage, and disposal of non-recyclable products.

In many parts of the world, including most European countries, mandatory “extended producer responsibility” policies have been established that require manufacturers to take responsibility for end-of-life management of their products. In the United States, there has been little support at the federal level for such regulatory policies; however, several state and local governments, with the help of the U.S. Environmental Protection Agency (EPA), have been exploring product stewardship options that can be implemented at the regional level.

The Solid Waste Division has joined with other governmental agencies, including Seattle Public Utilities, Snohomish County Solid Waste, EPA Region 10, Washington department of Ecology, Oregon Department of Environmental Quality, Clark County, City of Portland, and Portland Metro, to form the Northwest Product Stewardship Council (NWPSC). The mission of NWPSC is to integrate product stewardship into the policy and economic structures of the Pacific Northwest. In 1999, NWPSC hosted a series of meetings with representatives from industry, academia, and environmental groups to look at opportunities for voluntary product stewardship as well as regulatory options that could be implemented at the regional level. A regional conference drawing more than 200 attendees was held in April 2000 to gain better insights on programs and policies that are working elsewhere. The NWPSC plans to continue fostering dialogue with the private sector to develop criteria for evaluating voluntary efforts, and to provide information about product stewardship policy options to local and state decision makers.

The following product stewardship projects are underway in King County in partnership with other jurisdictions:

- The pilot *Computer Recovery Program* (King County, Seattle, Local Hazardous Waste Management Program) has developed a network of collection points at retail outlets for old computers and monitors
- The *Environmentally Preferable Computer Purchasing Project* (NWPSC, funded by King County and Seattle) has published a guidebook for public and private purchasing managers and is working with major purchasing entities to develop a pilot program
- The *Retail Apparel Product Stewardship Demonstration Program* (King County, Seattle) is working with major retail apparel companies based in the Northwest to phase out non-recyclable packaging, expand reuse of shipping containers, and take back spent products
- The *Retail Grocery Product Stewardship Demonstration Program* (King County, Seattle) is working with grocers and local producers to expand the use of reusable shipping containers
- The *Medical Industry Waste Prevention Roundtable* (King County, Seattle, EPA) convenes representatives from medical institutions and biotech laboratories throughout the region to develop strategies for reducing and improving management of medical waste

*From Waste Reduction, Recycling, and Market Development Chapter, Recommendations Section (Page 4-33)*

**Develop and implement a regional product stewardship strategy.**

- Emphasize product stewardship as a method of minimizing the environmental impacts of material use throughout a product's life cycle.
- Take a leadership role in analyzing regional and national policies to advance product stewardship through participation in the National Product Stewardship Council.
- Support state and national legislative efforts that offer feasible regulatory strategies for increasing product stewardship, including recycled-content legislation and take-back initiatives.
- Promote the ethic of product stewardship to the public and businesses.
- Provide education and assistance and, as appropriate, develop partnerships with manufacturers and other businesses to reduce packaging and incorporate environmental considerations into product design.
- Develop and implement programs to reduce disposal of electronics, including computers and televisions, and pursue partnerships to increase capacity for take-back and disassembly of electronic equipment.
- Coordinate with local hazardous waste management programs to promote take-back of household and small-quantity generator hazardous wastes such as motor oil, paint, fluorescent light bulbs, and household batteries.
- Assess opportunities to expand retail take-back efforts for latex paint, nicad batteries, and electronics.

*From Waste Reduction, Recycling, and Market Development Chapter, Recommendations Section (Table 4-3, Page 4-41)*

**Program or Activity:** Product stewardship

**Strategy:** Promote an environmental management strategy under which those who design, produce, sell, or use a product take responsibility for minimizing the product's life cycle:

- Coordinate with other jurisdictions through the Northwest Product Stewardship Council
- Develop partnerships with the private sector to focus on reducing disposal of specific materials, such as electronics and carpet
- Support regional efforts to implement product stewardship policies

**Responsibility for implementation:** County, City Voluntary



## **APPENDIX B**

### **SUMMARY OF PRODUCT STEWARDSHIP COALITIONS**

#### *Northwest Product Stewardship Council*

In 1998, the Division helped found the Northwest Product Stewardship Council (NWPSC) to develop a coordinated strategy that could have a greater visibility with manufacturers. Current members include staff from: King County Department of Natural Resources; the Local Hazardous Waste Management Program in King County; Seattle Public Utilities; Snohomish County Solid Waste Management Division; Clark County Public Works; Kitsap County Solid Waste Division; Washington Department of Ecology; Metro Waste Reduction and Outreach Division (Portland); City of Portland; and U.S. Environmental Protection Agency, Region X.

Each year the members of NWPSC sign a Letter of Agreement. Most NWPSC projects are funded directly by individual member agencies according to a work plan negotiated each year. King County has alternated with other jurisdictions to fund consultant support for Council coordination.

The objective of the NWPSC is to develop and recommend product stewardship policies, provide leadership, and coordinate product stewardship efforts in the Pacific Northwest. To that end, NWPSC publishes a *Policymakers' Bulletin*, circulated to local government legislative bodies throughout Oregon and Washington, that provides a briefing on hot issues or breaking news. NWPSC members also have made presentations in a number of forums to help make the concept of product stewardship more a part of the political mainstream in the Northwest.

#### *Product Stewardship Institute*

The Product Stewardship Institute (PSI) is affiliated with the University of Massachusetts in Lowell. PSI was created to assist state and local government agencies in establishing cooperative agreements with industry and environmental groups to reduce the health and environmental impacts from consumer product manufacture, use, storage, and disposal. The Division is a member of PSI. Representatives from the Washington State Department of Ecology and Metro (Portland, Oregon) are on the Steering Committee.

#### *Western Electronic Product Stewardship Initiative (WEPSI)*

WEPSI is a series of stakeholder meetings that will be held in the Western United States to engage manufacturers, suppliers, distributors, recyclers, non-profit organizations, government and consumers in exploration of product stewardship models for electronic equipment. Division staff are active participants in stakeholder meetings.

*National Electronic Product Stewardship Initiative (NEPSI)*

The National Electronics Product Stewardship Initiative (NEPSI), is a multi-stakeholder dialogue, involving the electronics industry, government, environmental groups, recyclers, and others, with an agreed-upon goal to "develop a system, which includes a viable financing mechanism, to maximize the collection, reuse and recycling of used electronics, while considering appropriate incentives to design products that facilitate source reduction, reuse and recycling; reduce toxicity; and increase recycled content." The dialogue began in June 2001, and the group has agreed to meet six times over the next year.

The University of Tennessee's Center for Clean Products and Clean Technologies (CCPCT) is coordinating the NEPSI process under a grant from the U.S. Environmental Protection Agency. NEPSI consists of 45 participants, including representatives of 12 electronics companies, the Electronics Industry Alliance, 12 state and local governments (including Snohomish County), EPA, 5 recycling companies, 2 computer product retailers, several non-profit associations and advocacy groups, and WEPSI.

NEPSI is addressing an initial set of electronic products including televisions, computer monitors and CPUs, and computer peripherals.

## EXHIBIT E – 1

### Enacted June 2001 by City and County of San Francisco Similar resolutions adopted by over 20 local governments in California

[Computer and Electronics Recycling]

URGING COMPUTER AND OTHER ELECTRONICS PRODUCERS TO TAKE RESPONSIBILITY FOR REUSE AND RECYCLING OF THEIR PRODUCTS.

WHEREAS, Electronic discards are an increasing problem, with more than 6,000 computers becoming obsolete in California every day<sup>1</sup>, and 3.2 million tons of electronic waste ending up in United States landfills in 2000 and estimated to quadruple in the next few years<sup>2</sup>; and,

WHEREAS, Electronics contain lead, cadmium, mercury, hexavalent chromium, polyvinyl chloride, brominated flame retardants and other materials that can pose hazards to human health and the environment when handled improperly; and,

WHEREAS, Only 14% of personal computers that became obsolete in 1998 were recycled or refurbished<sup>3</sup>; and,

WHEREAS, The City and County of San Francisco has been a leader in electronics reuse and recycling, and implemented a number of programs costing millions of dollars to reduce illegal dumping and promote the proper disposition of these products; and,

WHEREAS, The State of California recently affirmed that discarded cathode ray tubes, such as those found in televisions and computer monitors, are prohibited from municipal landfill, increasing concerns regarding proper disposal, cost and liability; and,

WHEREAS, Extended producer responsibility principles, such as those being adopted by several countries and the European Union, and contained in the *Electronics Take It Back Resolution*, a copy of which is on file with the Clerk of the Board of Supervisors in File No. \_\_\_\_\_, will foster the development of sustainable design and recovery of electronic equipment by shifting the defaulted burden of disposal responsibility from government, ratepayers and taxpayers back to the manufacturers,

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<sup>1</sup> [Add citation]

<sup>2</sup> [Add EPA citation]

<sup>3</sup> *Electronic Product Recovery and Recycling Baseline Report*, National Safety Council, May 1999.

1 distributors and consumers of such products, where it properly belongs, in part by internalizing  
2 lifecycle costs in the price of such products; now, therefore, be it

3 RESOLVED, That the Board of Supervisors of the City and County of San Francisco supports the  
4 aforementioned *Electronics Take It Back Resolution*; and, be it

5 FURTHER RESOLVED, That the Board of Supervisors of the City and County of San Francisco  
6 hereby urges its State Assembly Members and Senators, by letter and receipt of this resolution, to  
7 introduce and support legislation requiring computer and electronics producers to operate or fund  
8 comprehensive extended producer responsibility programs whereby products are sustainably designed  
9 and labeled, consumers receive a financial incentive for proper disposal, a convenient collection  
10 infrastructure yielding a high rate of recovery is created and environmentally sound reuse followed by  
11 recycling is maximized; and, be it

12 FURTHER RESOLVED, That if no effective producer responsibility program is created by  
13 industry or enacted by the California Legislature and signed by the Governor by October 15, 2002, the  
14 City and County of San Francisco will commence preparing a local ordinance to require sellers and  
15 manufacturers to take back computers and other electronic equipment at no additional charge or fully  
16 fund a free and convenient recovery system; and, be it

17 FURTHER RESOLVED, That the City and County of San Francisco, should industry and the  
18 Legislature and Governor fail to act, may additionally require a deposit or fee at the point of sale to  
19 provide incentives for consumers to properly dispose of such products and cover the costs to the City  
20 and County and others for proper management of such products.

21  
22  
23  
24  
25

AMENDED IN SENATE MAY 8, 2002

AMENDED IN SENATE APRIL 17, 2002

SENATE BILL

No. 1619

Introduced by Senators Romero and Sher  
(Coauthor: Senator Soto)

February 21, 2002

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~~An act to add Sections 42586, 42587, 42588, and 42589 to the Public Resources Code, relating to solid waste, and making an appropriation therefor. An act to add Sections 42590, 42591, 42592, and 42593 to the Public Resources Code, relating to solid waste.~~

LEGISLATIVE COUNSEL'S DIGEST

SB 1619, as amended, Romero. Solid waste: cathode ray tubes and CRT devices.

Existing law requires the California Integrated Waste Management Board to administer state programs to recycle plastic trash bags, plastic packaging containers, waste tires, newsprint, and other specified materials.

This bill, in conjunction with SB 1523, would establish a program administered by the board to recover, reuse, and recycle cathode ray tubes and CRT devices, as defined.

The bill would require the board, *upon appropriation*, to use funds in the Cathode Ray Tube Recycling Account, which SB 1523 would establish ~~as a continuously appropriated account~~ in the Integrated Waste Management Fund, for the purposes of providing (1) matching grant funds to local governments to establish and maintain local programs that provide for the convenient and cost-effective collection and processing of cathode ray tubes and CRT devices; (2) annual recycling

incentive payments to CRT material handlers that collect and process cathode ray tubes and CRT devices; (3) grants to nonprofit agencies that *recycle and* refurbish cathode ray tubes and CRT devices for reuse; (4) ~~grants to provide financial assistance to nonprofit organizations in order to assist those organizations in the disposal of cathode ray tubes and CRT devices that they receive as donations; and (5) loans and loan guarantees to manufacturers for research and development of environmentally friendly cathode ray tubes and CRT devices, as defined in SB 1523. By requiring the money in the account to be used for these additional purposes, the bill would make an appropriation~~ *grants to manufacturers of CRT devices to encourage consumers to return the devices for processing, recycling, or reuse and to assist manufacturers in collecting, processing, recycling, or reusing CRT devices. The bill would also require these funds, upon appropriation to be used by the board to a public information program to educate the public on the hazards of improper CRT device storage and disposal and on the opportunities to recycle CRT devices; and to provide funding to the Department of Toxic Substances Control to implement and enforce certain provisions relating to hazardous waste control, as those provisions relate to CRT devices, and any regulations adopted by the department pursuant thereto.*

*The bill would prohibit the board from making any grant or incentive payment under the program unless the applicant for the grant or payment demonstrates (1) that the CRT devices collected by the applicant will be recycled, refurbished, or disposed of in a manner that is in compliance with all applicable federal, state, and local laws, regulations, and ordinances, and that the devices will not be exported from the state for disposal in a manner that poses a significant risk to the public health or the environment; and (2) that the applicant will accept for recycling or refurbishment any CRT device for which fees have been paid and a label has been issued, without charging for that recycling or refurbishment.*

The bill would provide state goals relating to the diversion, reuse, and recycling of cathode ray tubes and CRT devices.

The bill would require that on and after January 1, 2004, all cathode ray tubes and CRT devices, and packaging containing those tubes and devices, include a clear and conspicuous label of a size and format approved by the Department of Toxic Substances Control, containing certain information regarding the proper disposal of the tubes and devices.

The bill would provide that its provisions shall become operative only if SB 1523 of the 2001–02 Regular Session is enacted and becomes operative.

Vote: majority. Appropriation: *yes no*. Fiscal committee: *yes*. State-mandated local program: *no*.

*The people of the State of California do enact as follows:*

1 ~~SECTION 1. Section 42586 is added to the Public Resources~~  
2 ~~Code, to read:~~

3 ~~42586. (a) The~~

4 ~~SECTION 1. Section 42590 is added to the Public Resources~~  
5 ~~Code, to read:~~

6 ~~42590. Upon appropriation, the board shall use funds in the~~  
7 ~~account to do all of the following:~~

8 ~~(1)~~

9 ~~(a) Provide matching grant funds to local governments to~~  
10 ~~establish and maintain local programs that provide for the~~  
11 ~~convenient and cost-effective collection and processing of cathode~~  
12 ~~ray tubes and CRT devices.~~

13 ~~(2)~~

14 ~~(b) Provide annual recycling incentive payments to CRT~~  
15 ~~material handlers that collect and process cathode ray tubes and~~  
16 ~~CRT devices, if those facilities comply with all of the applicable~~  
17 ~~provisions of Sections 66273.80 to 66273.90, inclusive, of Title 22~~  
18 ~~of the California Code of Regulations. In awarding annual~~  
19 ~~recycling incentive payments under this section, the board shall~~  
20 ~~place highest priority on supporting CRT material handling~~  
21 ~~facilities that have obtained registration pursuant to Standard No.~~  
22 ~~14001 of the International Standards Organization (ISO 14001).~~

23 ~~(3) Provide grants to nonprofit agencies that refurbish cathode~~  
24 ~~ray tubes and CRT devices for reuse.~~

25 ~~(4) Provide grants to nonprofit organizations as follows:~~

26 ~~(A) In order to assist nonprofit organizations in the disposal of~~  
27 ~~cathode ray tubes and CRT devices that they receive as donations,~~  
28 ~~the board shall establish a grant program to offset the cost that~~  
29 ~~these organizations incur in the disposal of tubes and devices in~~  
30 ~~accordance with this division.~~

31 ~~(B) The grants shall be available to any nonprofit organization~~  
32 ~~that receives cathode ray tubes and CRT devices for the purpose~~



1 (d) "CRT device" means any television, video monitor,  
2 computer monitor, or other device that contains one or more  
3 cathode ray tubes.

4 (e) "Department" means the Department of Toxic Substances  
5 Control.

6 (f) "Fee" means the cathode ray tube recycling fee established  
7 under Section 42582.

8 (g) "Hazardous waste" has the same meaning as defined in  
9 Section 25117 of the Health and Safety Code.

10 (h) "Manufacturer" means a person who produces CRT  
11 devices.

12 (i) "Retailer" means a person who owns or operates a business  
13 that sells CRT devices.

14 (j) "Sell" or "sale" means any transfer of title or of the right  
15 to use, by lease or sales contract, including, but not limited to,  
16 transactions conducted through sales outlets, catalogs, and the  
17 Internet or any other, similar electronic means, and excluding  
18 wholesale transactions with distributors or dealers.

19 42582. (a) On and after ~~July 1, 2003~~ *January 1, 2004*, every  
20 retailer that sells CRT devices directly to consumers shall collect  
21 at the point of sale a cathode ray tube recycling fee for each CRT  
22 device sold in the state, in an amount established under Section  
23 42582.5.

24 (b) On and after ~~July 1, 2003~~ *January 1, 2004*, to the extent  
25 authorized by the United States Constitution and the statutory and  
26 case law implementing and interpreting that Constitution, every  
27 manufacturer that sells CRT devices directly to consumers in the  
28 state shall collect a cathode ray tube recycling fee in an amount  
29 established under Section 42582.5, for each CRT device sold in the  
30 state.

31 (c) Each retailer and manufacturer that is subject to this section  
32 shall transmit all fees collected under this section to the board on  
33 or before the last day of the month following each quarter,  
34 accompanied by any forms prescribed by the board.

35 (d) Subdivisions (a) and (b) shall become inoperative on the  
36 operative date of any federal law or combination of federal laws  
37 that meets all of the following criteria:

38 (1) Establishes a program for the collection, recycling,  
39 refurbishment, and proper disposal of CRT devices that is  
40 applicable to all CRT devices sold in the United States.

1 (c) Provide grants to nonprofit organizations that recycle and  
2 refurbish cathode ray tubes and CRT devices for reuse. Grants to  
3 nonprofit organizations made under this subdivision may be made  
4 available for the purposes of refurbishing and reselling CRT  
5 devices and for the training of persons in the repair, refurbishing,  
6 and recycling of those devices.

7 (d) Provide grants to manufacturers of CRT devices to  
8 encourage consumers to return the devices for processing,  
9 recycling, or reuse and to assist manufacturers in collecting,  
10 processing, recycling, or reusing CRT devices.

11 (e) Establish a public information program to educate the  
12 public on the hazards of improper CRT device storage and disposal  
13 and on the opportunities to recycle CRT devices. Not more than 1  
14 percent of funds in the account may be used for the purposes of  
15 implementing this subdivision.

16 (f) Provide funding to the Department of Toxic Substances  
17 Control to implement and enforce Chapter 6.5 (commencing with  
18 Section 25000) of the Health and Safety Code, as that chapter  
19 relates to CRT devices, and any regulations adopted by that  
20 department pursuant thereto.

21 SEC. 2. Section 42591 is added to the Public Resources Code,  
22 to read:

23 42591. No grant or incentive payment may be made by the  
24 board under subdivision (a) to (d), inclusive, of Section 42590  
25 unless the applicant for the grant or payment demonstrates both  
26 of the following:

27 (a) The CRT devices collected by the applicant will be recycled,  
28 refurbished, or disposed of in a manner that is in compliance with  
29 all applicable federal, state, and local laws, regulations, and  
30 ordinances, and the devices will not be exported from the state for  
31 disposal in a manner that poses a significant risk to the public  
32 health or the environment.

33 (b) The applicant will accept for recycling or refurbishment  
34 any CRT device for which fees have been paid and a label has been  
35 issued without charging for that recycling or refurbishment.

36 SEC. 3. Section 42592 is added to the Public Resources Code,  
37 to read:

38 42592. (a) The Legislature finds and declares that existing  
39 law prohibits the disposal of cathode ray tubes and CRT devices  
40 in landfill facilities and requires that the tubes and devices be

1 disposed of in accordance with provisions of law relating to  
2 disposal of hazardous waste.

3 (b) Accordingly, the Legislature further finds and declares that  
4 the following shall be the goals of the state regarding the diversion,  
5 reuse, and recycling of cathode ray tubes and CRT devices:

6 (1) On and after January 1, 2004, not less than 80 percent of  
7 cathode ray tubes and CRT devices shall be diverted from disposal  
8 in landfill facilities.

9 (2) On and after January 1, 2006, not less than 95 percent of  
10 cathode ray tubes and CRT devices shall be diverted from disposal  
11 in landfill facilities.

12 (3) On and after January 1, 2004, not less than 25 percent of  
13 cathode ray tubes and CRT devices shall be diverted from disposal  
14 at a hazardous waste facility and recovered for reuse or recycling.

15 (4) On and after January 1, 2007, not less than 50 percent of  
16 cathode ray tubes and CRT devices shall be diverted from disposal  
17 at a hazardous waste facility and recovered for reuse or recycling.

18 (5) On and after January 1, 2010, not less than 75 percent of  
19 cathode ray tubes and CRT devices shall be diverted from disposal  
20 at a hazardous waste facility and recovered for reuse or recycling.

21 (c) This section is intended to provide goals to facilitate and  
22 encourage compliance with existing laws relating to the disposal  
23 of hazardous waste. Nothing in this section is intended to  
24 supercede any other provision of law relating to the disposal of  
25 hazardous waste.

26 ~~SEC 4. Section 42589 is added to the Public Resources Code,  
27 to read:~~

28 ~~42589.—~~

29 *SEC. 4. Section 42593 is added to the Public Resources Code  
30 to read:*

31 *42593. On and after January 1, 2004, all cathode ray tubes and  
32 CRT devices, and packaging containing those tubes or devices,  
33 shall include a clear and conspicuous label of a size and format  
34 approved by the Department of Toxic Substances Control,  
35 containing all of the following:*

36 (a) A warning statement approved by the Department of Toxic  
37 Substances Control specifying that the cathode ray tube or CRT  
38 device contains one or more hazardous materials, the disposal of  
39 which may pose a threat to public health and the environment.

1 (b) A listing of the hazardous materials contained in the  
2 cathode ray tube or CRT device.

3 (c) Information on opportunities for and the appropriate means  
4 of discarding the cathode ray tube or CRT device, including a  
5 toll-free telephone number or Internet address where consumers  
6 can get specific information on convenient, no-cost opportunities  
7 for discarding cathode ray tubes and CRT devices for reuse,  
8 recycling, or proper waste management.

9 SEC 5. This act shall become operative only if Senate Bill  
10 1523 of the 2001-02 Regular Session is enacted and becomes  
11 operative.





AMENDED IN SENATE MAY 28, 2002

AMENDED IN SENATE MAY 8, 2002

SENATE BILL

No. 1523

Introduced by Senator Sher

February 20, 2002

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An act to add Chapter 11 (commencing with Section 42580) to Part 3 of Division 30 of the Public Resources Code, relating to solid waste.

LEGISLATIVE COUNSEL'S DIGEST

SB 1523, as amended, Sher. Solid waste: cathode ray tubes and CRT devices: recycling and refurbishment.

(1) Existing law requires the California Integrated Waste Management Board to administer state programs to recycle plastic trash bags, plastic packaging containers, waste tires, newsprint, and other specified materials.

This bill would establish a state program administered by the board to recycle cathode ray tubes (CRTs) and CRT devices, as defined.

The bill would require, on and after ~~July 1, 2003~~ *January 1, 2004*, that every manufacturer or retailer that sells CRT devices directly to consumers collect a fee at the point of sale in amounts to be established by the board for each CRT device sold in the state. The bill would require the manufacturer or retailer to transmit the fees to the board on or before the last day of the month following each quarter, accompanied by any forms prescribed by the board.

The bill would require the board to deposit the fees in the Cathode Ray Tube Recycling Account, which the bill would establish in the Integrated Waste Management Fund. The funds in the account would

be available to the board, upon appropriation, for the purposes of implementing the recycling and refurbishment program.

The bill would establish the Cathode Ray Tube Recycling Advisory Committee within the board to advise the board on certain matters relating to the recycling and refurbishment program. The committee would consist of 7 members appointed by the Governor for 2-year terms, as specified, to represent specified interested parties.

The bill would require the board to use funds in the account to (a) provide matching grant funds to local governments to establish and maintain local programs that provide for the convenient and cost-effective collection and processing of cathode ray tubes and CRT devices; (b) provide annual recycling incentive payments to CRT material handlers that collect and process cathode ray tubes and CRT devices, as specified; (c) provide grants to nonprofit agencies that refurbish cathode ray tubes and CRT devices for reuse; (d) provide grants to manufacturers of CRT devices to encourage consumers to return the devices for processing, recycling, or reuse and to assist manufacturers in collecting, processing, recycling, or reusing CRT devices; (e) establish a public information program to educate the public on the hazards of improper CRT device storage and disposal and on the opportunities to recycle CRT devices; and (f) provide funding to the Department of Toxic Substances Control to implement and enforce certain provisions relating to hazardous waste control, as those provisions relate to CRT devices, and any regulations adopted by the department pursuant thereto.

The bill would require the board to design and issue a label to persons, retailers, and manufacturers for the purpose of designating CRT devices for which the specified fees have been paid.

The bill would make it unlawful, *on and after January 1, 2004*, for a manufacturer or retailer to sell a CRT device directly to a consumer in the state unless the specified fee has been paid on the CRT device and the specified label issued by the board for the CRT device is attached to that device. The bill thereby would establish a state-mandated local program by creating a new crime.

The bill would authorize the board to adopt rules and regulations for the purpose of administering the program.

(2) The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that no reimbursement is required by this act for a specified reason.

Vote: majority. Appropriation: no. Fiscal committee: yes. State-mandated local program: yes.

*The people of the State of California do enact as follows:*

1 SECTION 1. Chapter 11 (commencing with Section 42580)  
2 is added to Part 3 of Division 30 of the Public Resources Code, to  
3 read:

4

5 CHAPTER 11. CATHODE RAY TUBE RECYCLING

6

7 42580. The Legislature finds and declares all of the  
8 following:

9 (a) Many electronic waste products contain hazardous  
10 materials that may pose risks to public health and the environment  
11 if improperly handled or discarded.

12 (b) Most California communities lack the infrastructure  
13 needed to provide for the convenient and affordable collection,  
14 refurbishment, processing, and recycling of electronic wastes.

15 (c) It is the intent of the Legislature to ensure that funds are  
16 available to assist cities, counties, and recyclers of electronic  
17 wastes in developing programs to safely collect and recycle the  
18 hazardous materials contained in electronic wastes.

19 (d) It is also the intent of the Legislature to promote the  
20 refurbishment and reuse of electronic equipment for use by  
21 schools and nonprofit agencies.

22 42581. For the purposes of this chapter, the following terms  
23 have the following meanings, unless the context clearly requires  
24 otherwise:

25 (a) "Account" means the Cathode Ray Tube Recycling  
26 Account established under Section 42583.

27 (b) "Cathode ray tube" or "CRT" means a vacuum tube or  
28 picture tube used to convert an electronic signal into a visual  
29 image.

30 (c) "Committee" means the Cathode Ray Tube Recycling  
31 Advisory Committee established under Section 42584.



1 (d) "CRT device" means any television, video monitor,  
2 computer monitor, or other device that contains one or more  
3 cathode ray tubes.

4 (e) "Department" means the Department of Toxic Substances  
5 Control.

6 (f) "Fee" means the cathode ray tube recycling fee established  
7 under Section 42582.

8 (g) "Hazardous waste" has the same meaning as defined in  
9 Section 25117 of the Health and Safety Code.

10 (h) "Manufacturer" means a person who produces CRT  
11 devices.

12 (i) "Retailer" means a person who owns or operates a business  
13 that sells CRT devices.

14 (j) "Sell" or "sale" means any transfer of title or of the right  
15 to use, by lease or sales contract, including, but not limited to,  
16 transactions conducted through sales outlets, catalogs, and the  
17 Internet or any other, similar electronic means, and excluding  
18 wholesale transactions with distributors or dealers.

19 42582. (a) On and after ~~July 1, 2003~~ *January 1, 2004*, every  
20 retailer that sells CRT devices directly to consumers shall collect  
21 at the point of sale a cathode ray tube recycling fee for each CRT  
22 device sold in the state, in an amount established under Section  
23 42582.5.

24 (b) On and after ~~July 1, 2003~~ *January 1, 2004*, to the extent  
25 authorized by the United States Constitution and the statutory and  
26 case law implementing and interpreting that Constitution, every  
27 manufacturer that sells CRT devices directly to consumers in the  
28 state shall collect a cathode ray tube recycling fee in an amount  
29 established under Section 42582.5, for each CRT device sold in the  
30 state.

31 (c) Each retailer and manufacturer that is subject to this section  
32 shall transmit all fees collected under this section to the board on  
33 or before the last day of the month following each quarter,  
34 accompanied by any forms prescribed by the board.

35 (d) Subdivisions (a) and (b) shall become inoperative on the  
36 operative date of any federal law or combination of federal laws  
37 that meets all of the following criteria:

38 (1) Establishes a program for the collection, recycling,  
39 refurbishment, and proper disposal of CRT devices that is  
40 applicable to all CRT devices sold in the United States.

1 (2) Provides revenues to the state to support the collection,  
2 recycling, refurbishment, and proper disposal of CRT devices, in  
3 amounts that are equal to or greater than the revenues that would  
4 be generated by the fees imposed under Section 42582.5.

5 (3) Requires CRT device manufacturers, retailers, handlers,  
6 processors, and recyclers to dispose of those devices in a manner  
7 that is in compliance with all applicable federal, state, and local  
8 laws, regulations, and ordinances, and prohibits the devices from  
9 being exported for disposal in a manner that poses a significant risk  
10 to the public health or the environment.

11 42582.5. The board shall do all of the following:

12 (a) Establish a schedule of fees to be collected pursuant to  
13 Section 42582 and, at the discretion of the board, adjust the fees  
14 in a duly noticed public hearing not more frequently than once a  
15 year.

16 (b) Limit the amount of any fees to not more than thirty dollars  
17 (\$30.00) per CRT device.

18 (c) Set the fee in a manner that takes into account the types and  
19 quantities of hazardous wastes in CRT devices.

20 (d) Set the fee at the lowest feasible level in order to ensure the  
21 effective handling, processing, recycling, and refurbishment of  
22 CRT devices.

23 (e) Establish procedures for the imposition and collection of  
24 the fee on CRT devices sold by retailers or manufacturers directly  
25 to consumers.

26 (f) Design and issue a label to persons, retailers, and  
27 manufacturers for the purpose of designating CRT devices for  
28 which fees have been paid.

29 (g) To the extent necessary to implement this chapter, collect  
30 information from the manufacturers of CRT devices on their sales  
31 of CRT devices, including, but not limited to, any of the  
32 manufacturer's devices sold by retailers, and the fees paid on those  
33 devices.

34 42582.7. Subdivisions (a) to (e), inclusive, of Section  
35 42582.5 shall become inoperative on the operative date of any  
36 federal law or combination of federal laws that meets all of the  
37 following criteria:

38 (a) Establishes a program for the collection, recycling,  
39 refurbishment, and proper disposal of CRT devices that is  
40 applicable to all CRT devices sold in the United States.

1 (b) Provides revenues to the state to support the collection,  
2 recycling, refurbishment, and proper disposal of CRT devices, in  
3 amounts that are equal to or greater than the revenues that would  
4 be generated by the fees imposed under Section 42582.5.

5 (c) Requires CRT device manufacturers, retailers, handlers,  
6 processors, and recyclers to dispose of those devices in a manner  
7 that is in compliance with all applicable federal, state, and local  
8 laws, regulations, and ordinances, and prohibits the devices from  
9 being exported for disposal in a manner that poses a significant risk  
10 to the public health or the environment.

11 42583. The board shall deposit all fees collected under  
12 Section 42582 in the Cathode Ray Tube Recycling Account, which  
13 is hereby established in the Integrated Waste Management Fund.  
14 Funds in the account shall be made available to the board for  
15 expenditure pursuant to this chapter, upon appropriation by the  
16 Legislature.

17 42584. (a) The Cathode Ray Tube Recycling Advisory  
18 Committee is hereby established within the board to advise the  
19 board on matters relating to, but not limited to, all of the following:

20 (1) Periodic adjustment of the fee.

21 (2) Annual priorities for the disbursement of funds as provided  
22 in Section 42585.

23 (3) Removing impediments to the recovery, refurbishment, and  
24 recycling of cathode ray tubes and CRT devices.

25 (b) The committee shall consist of seven members appointed  
26 by the Governor to represent all of the following:

27 (1) Manufacturers, retailers, refurbishers, and recyclers of  
28 cathode ray tubes and CRT devices.

29 (2) Public interest environmental organizations.

30 (3) Local government.

31 (4) Solid waste collection companies.

32 (c) Committee members shall be appointed for two-year terms,  
33 except that for the initial term, three members shall be appointed  
34 to one-year terms and four members shall be appointed to two-year  
35 terms. The Governor shall appoint a replacement if any vacancy  
36 occurs.

37 42585. The board shall use funds in the account to do all of the  
38 following:

39 (a) Provide matching grant funds to local governments to  
40 establish and maintain local programs that provide for the

1 convenient and cost-effective collection and processing of cathode  
2 ray tubes and CRT devices.

3 (b) Provide annual recycling incentive payments to CRT  
4 material handlers that collect and process cathode ray tubes and  
5 CRT devices, if those facilities comply with all of the applicable  
6 provisions of Sections 66273.80 to 66273.90, inclusive, of Title 22  
7 of the California Code of Regulations.

8 (c) Provide grants to nonprofit agencies that refurbish cathode  
9 ray tubes and CRT devices for reuse. Grants to nonprofit  
10 organizations made under this subdivision may be made available  
11 for the purposes of refurbishing and reselling CRT devices and for  
12 the training of persons in the repair, refurbishing, and recycling of  
13 those devices.

14 (d) Provide grants to manufacturers of CRT devices to  
15 encourage consumers to return the devices for processing,  
16 recycling, or reuse and to assist manufacturers in collecting,  
17 processing, recycling, or reusing CRT devices.

18 (e) Establish a public information program to educate the  
19 public on the hazards of improper CRT device storage and disposal  
20 and on the opportunities to recycle CRT devices. Not more than  
21 one percent of funds in the account may be used for the purposes  
22 of implementing this subdivision.

23 (f) Provide funding to the department to implement and  
24 enforce Chapter 6.5 (commencing with Section 25000) of the  
25 Health and Safety Code, as that chapter relates to CRT devices, and  
26 any regulations adopted by the department pursuant thereto.

27 42586. No grant or incentive payment may be made by the  
28 board under subdivisions (a) to (d), inclusive, of Section 42585  
29 unless the applicant for the grant or payment demonstrates both of  
30 the following:

31 (a) That the CRT devices collected by the applicant will be  
32 recycled, refurbished, or disposed in a manner that is in  
33 compliance with all applicable federal, state, and local laws,  
34 regulations, and ordinances, and that the devices will not be  
35 exported from the state for disposal in a manner that poses a  
36 significant risk to the public health or the environment.

37 (b) That the applicant will accept for recycling or  
38 refurbishment any CRT device for which fees have been paid and  
39 a label has been issued without charging for that recycling or  
40 refurbishment.



1 42587. On and after ~~July 1, 2003~~ *January 1, 2004*, it is  
2 unlawful for a manufacturer or retailer to sell a CRT device  
3 directly to a consumer in the state unless the fee established under  
4 Section 42582.5 has been paid on the CRT device and a label  
5 issued by the board pursuant to subdivision (f) of Section 42582.5  
6 for the CRT device is attached to that device.

7 42588. The board may adopt rules and regulations for the  
8 purpose of administering this chapter.

Adopted by 54 local governments  
in Massachusetts, including  
Boston.

## Massachusetts Resolution on Electronics Take-Back

### RESOLUTION SUPPORTING PRODUCER TAKE BACK OF CATHODE RAY TUBES, ELECTRONICS, & HOUSEHOLD HAZARDOUS PRODUCTS

*Whereas*, discarded electronic products, including computer monitors, televisions, computers and others, are an increasing problem for Massachusetts cities & towns, who have to deal with more than 75,000 tons of electronic waste each year, which is expected to increase to 300,000 tons each year by 2005; and

*Whereas*, discarded electronic products contain lead, cadmium, mercury, hexavalent chromium, polyvinyl chloride, brominated flame retardant and other toxic materials that can pose hazards to human health and the environment when landfilled or incinerated; and

*Whereas*, the Commonwealth of Massachusetts, on April 1, 2000, because of the toxicity of this waste, prohibited the disposal of discarded cathode ray tubes (CRT's), such as those found in televisions and computer monitors, in municipal landfills or incinerators, which has increased local government costs for recycling discarded CRT's; and,

*Whereas*, Massachusetts residents generate an estimated 6 pounds per year of household hazardous products, such as paint, septic cleaners, pesticides, fingernail polish, and shoe polish, and Massachusetts cities & towns spend thousands of dollars each year for collection events to divert these household hazardous products from disposal; and

*Whereas*, the costs incurred by Massachusetts cities and towns for disposal of products that contain toxics and are not easily recyclable, particularly electronic products and household hazardous products, are in effect unfunded mandates imposed by the producers of such products on local taxpayers; which takes funds away from other needed local government programs, such as schools, fire protection, emergency services, and police; and

*Whereas*, the Massachusetts *Beyond 2000 Solid Waste Master Plan* adopted December 20, 2000, commits the Executive Office of Environmental Affairs to develop a Product Stewardship Policy that will encourage or require producers to take greater responsibility for the costs of disposing of their discarded products, but this needed state policy has not yet been adopted; and

*Whereas*, Producer Take Back requirements, which have been adopted in many countries across the world, will shift the burden of disposal costs for electronic and household products from local taxpayers back to the producers, internalizing these costs and giving a market incentive to design products that are durable, less toxic and recyclable; and

**NOW, THEREFORE, BE IT RESOLVED**, that the Board of Selectmen of the Town of \_\_\_\_\_:

1. Calls on its State Representative and State Senator to support passage of H-3154, *An act to require manufacturers to take back used cathode ray tubes*; and
2. Calls on the Legislature to develop and support legislation to require Producer Take Back for all consumer electronics products, computers, and household hazardous products; and
3. Calls on Governor Jane Swift to support H-3154, to support Producer Take Back legislation for consumer electronics, computers, and household hazardous products, to adopt a statewide Producer Take Back policy, and to adopt statewide procurement guidelines to require vendors who provide products to state and local government to take back discarded electronics and household hazardous products.



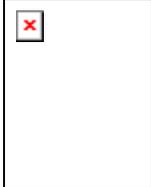
**EXHIBIT E – 4**  
**(in House Ways & Means Committee)**

**HOUSE, No. 4716**

HOUSE OF REPRESENTATIVES, November 5, 2001.  
The committee on Natural Resources and Agriculture, to whom was referred the petition (accompanied by bill, House, No. 3154) of Mark J. Carron relative to the disposal of cathode ray tubes, reports recommending that the accompanying bill (House, No. 4716) ought to pass.

For the committee,

ROBERT M. KOCZERA.



**The Commonwealth of Massachusetts**

In the Year Two Thousand and One.

**AN ACT TO REQUIRE THE TAKE BACK OF USED CATHODE RAY TUBES.**

*Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:*

**SECTION 1.** Chapter 16 of the General Laws is hereby amended by inserting the following new sections:—

**Section 19A.** No product which includes a cathode ray tube shall be offered for final sale or use or distribution for promotional purposes in the Commonwealth of Massachusetts until such time as the manufacturer of said product either on its own or in concert with other persons has implemented a plan approved by the department of environmental protection for a convenient and accessible collection system for such products when the consumer is finished with them.

Where a cathode ray tube is a component of another product, the collection system must provide for removal and collection of the cathode ray tube component or collection of both the cathode ray tube component and the product containing it.

**Section 19B.** The collection system plan submitted to the department pursuant to section 19A shall include the following elements:

- (1) a public education program to inform the public about the purpose of the collection program and how to participate in it;
- (2) a targeted capture rate of ninety-five percent (95%) or more for the cathode ray tubes and/or the product containing it;
- (3) a plan for implementing and financing the collection system;

**EXHIBIT E – 4**  
**(in House Ways & Means Committee)**

- (4) documentation of the willingness of all necessary parties to implement the proposed collection system;
- (5) a description of the performance measures to be utilized and reported by the manufacturer to demonstrate that the collection system is meeting capture rate targets and other measures of program effectiveness as required by the department; and
- (6) a description of additional or alternative actions that will be implemented to improve the collection system and its operation in the event that the program targets are not met.

The collection system plan may utilize or expand on existing collection and recycling infrastructure where feasible and cost-effective. Any plan submitted which does not utilize existing collection and recycling infrastructure shall describe the reasons for establishing a separate collection system. Where establishing a separate system, manufacturers are required to develop, implement, and maintain the collection system, alone or in conjunction with other entities.

**Section 19C.** No later than two years following the implementation of the collection system plan required under section 19A and biennially thereafter, the manufacturer or entity that submitted the plan on behalf of the manufacturer and is implementing said plan shall be required to submit a report to the department on the effectiveness of the collection system. The report shall include an estimate of the numbers of cathode ray tubes that were collected, the capture rate for the cathode ray tubes or components, the results of the other performance measures included in the manufacturers collection system plan, and such other information as the department may require. Such reports shall be made available to the public by the department.

**SECTION 2.** Section 1 shall take effect one year following the effective date of this act.

## GreenYes Archives

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### [GreenYes] Maine Legislature passes important EPR bill today

- *Subject:* [GreenYes] Maine Legislature passes important EPR bill today
- *From:* Mike Garfield <[michaieg@ecocenter.org](mailto:michaieg@ecocenter.org)>
- *Date:* Thu, 4 Apr 2002 17:34:45 -0500

*Title:* **Maine Legislature passes important EPR bill today**  
**FOR IMMEDIATE RELEASE**

Charles Griffith, Ecology Center, 734-663-2400 x116  
 Janet Kreizman, ISRI, 202-662-8527

#### **MAINE PASSES BILL TO REMOVE TOXIC MERCURY FROM VEHICLES**

*Industry-Environmental Partnership Praises Nation's First Law to Require  
 Manufacturer Responsibility for Mercury Switch Recovery*

(4 April, 2002 -- Augusta, Maine) The Partnership for Mercury-Free Vehicles, a broad coalition of environmental organizations and the industries involved in vehicle recycling, today praised the Maine legislature's passage of the nation's first law to mandate manufacturer responsibility for the removal of toxic mercury from vehicles. The law requires auto makers to create a system for removing and safely disposing of the mercury used in cars and trucks.

"Maine has set the tone for the rest of the nation," said Charles Griffith of the Michigan-based Ecology Center, who served on the State of Maine Advisory Task Force. "This law will go a long way toward eliminating one key source of mercury in our environment, helping reduce the risk that this toxic substance will cause serious developmental harm in fetuses and children."

The Maine law creates a manufacturer-funded system for removing and disposing of mercury-added components, such as switches in hood and trunk lights, before vehicles are crushed or shredded for recycling. Currently, there is no such system, and many mercury switches remain in the vehicles as they go through the recycling process, which can potentially lead to environmental and health hazards.

Automakers opposed the legislation, and sought instead to create a state-run system funded by fees on new and used car sales through dealers. This amendment, along with other weakening provisions, ultimately failed to gain enough votes. The bill now awaits the governor's signature.

"The Maine legislature voted by a wide margin to hold the auto makers accountable for mercury pollution from cars," said Michael Belliveau, Toxics Project Director for the Natural Resources Council of Maine. "As the state most downwind of mercury air pollution sources, Maine's leadership makes good sense. Now other states should follow the old political adage, 'As Maine goes, so goes the nation,' so that manufacturers' responsibility for mercury sweeps the nation."

Airborne mercury can travel hundreds of miles before being deposited in lakes and on land. According to data from the Centers for Disease Control and Prevention, hundreds of thousands of babies born each year are at risk from developmental problems due to mercury exposure in the womb. Most states, including Maine, have issued advisories against eating certain kinds of fish because of mercury contamination.

"We in the recycling industry have long been concerned about the use of potentially hazardous materials such as mercury in automobiles," said Robin K. Wiener, President of the Institute of Scrap Recycling Industries (ISRI). "Maine's new auto mercury law removes from the recycling equation a known public health hazard and helps to ensure that the auto manufacturers share in the responsibility for solving a problem created by their decision to use mercury in the first place."

"This is an issue that has been created by the manufacturers, as they have chosen to put mercury in their vehicles. To our knowledge, auto makers have yet to disclose their historical uses of mercury as well as specific models that contain mercury. Our members simply cannot assume the significant responsibility for disposing of these toxic substances," said Automotive Recyclers Association (ARA) Executive Vice President Bill Steinkuller.

"Steel is America's most recycled material and autos its most recycled product," said Bill Heenan, President of the Steel Recycling Institute (SRI). "In order to keep the most effective recycling infrastructure in America functioning, it must be protected from contaminants. Maine's auto mercury law should lead the way for the rest of the nation in ensuring automobiles continue to be America's most recycled product."

Members of the Partnership for Mercury-Free Vehicles: Automotive Recyclers Association, Clean Car Campaign, Clean Production Network, Ecology Center (Michigan), Environmental Defense, Great Lakes United, Institute of Scrap Recycling Industries, Inc., Mercury Policy Project, Steel Manufacturers Association, and the Steel Recycling Institute.

### **LD1921- An Act to Prevent Mercury Emissions when Recycling and Disposing of Motor Vehicles**

Major features of the bill include:

- \* Auto recyclers are required to remove mercury switches and mercury headlamps from cars prior to being crushed
- \* Effective January 1, 2003, automobile manufacturers are required to establish consolidation centers for the collection of mercury switches, pay a minimum of \$1 bounty for each switch turned in, and pay for transport and recycling of switches collected according to universal waste rules
- \* Other auto-related businesses (dealers, repair shops, etc.) have the option of participating in the mercury switch removal and bounty program upon registering with DEP and receiving universal waste training
- \* DEP will provide training and conduct educational outreach to promote switch removal
- \* Auto makers must provide information and technical assistance to identify makes & models

containing mercury switches and enable their removal and recycling

- \* After January 1, 2003, mercury switches are prohibited from being added to new cars sold in Maine
- \* A goal of 90 pounds of mercury removal per year is established to guide program evaluation.
- \* Detailed reporting is required to track program success and develop recommendations for program improvement

For more information, visit: <http://www.cleancarcampaign.org>

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- **Follow-Ups:**

- o [Re: \[GreenYes\] Maine Legislature passes important EPR bill today](#) - From: Helen Spiegelman

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## MERCURY THERMOMETERS (Supervisor Leno)

Amending Chapter VIII, Part 2 of the San Francisco Municipal Code (Police Code) by Adding Article 42B, Prohibiting the Manufacture, Importation and Retail Sale of Mercury Thermometers, and Specifying that a Violation of the Prohibition is a Misdemeanor.

## Existing Law

This entire Article is new and prohibits the manufacture, importation and retail sale of mercury thermometers in San Francisco.

## Background Information

This legislation is recommended by the Department of the Environment and supported by the Solid Waste Management Program and the Public Utilities Department. The legislation implements Board Resolution No. 602-99 (June 21, 1999) urging City agencies and departments and all medical facilities within San Francisco to eliminate mercury in order to protect and preserve human and environmental health. Resolution 602-99 also designated the elimination of mercury pollution caused by mercury-containing products as a high priority.

Mercury is a persistent and toxic pollutant that bioaccumulates in the environment and in the food chain. Mercury thermometers pose a threat to human health and the environment when broken or disposed of in the trash or as medical waste. While the amount of mercury in an individual thermometer may seem small, the total amount that is released into the environment as the result of thermometer use is significant. Several states and cities around the world have demonstrated that removal of mercury-containing products, such as mercury thermometers, from the waste stream is an effective way to reduce mercury contamination. In recent years, the City of Palo Alto has collected approximately 35 pounds of mercury through a take-back program.

Further, unlike major mining operations, which are a significant source of mercury pollution to the Bay over which the City has jurisdiction or control, there are accurate and safe alternatives to mercury thermometers that are readily-available and comparable in cost. These non-mercury alternatives are already in place at San Francisco General Hospital, where no mercury thermometers are used or dispensed.

In conjunction with this ban on new mercury thermometers, the City's Solid Waste Management Program and Public Utilities Department are working with the Department of the Environment to develop a program to take-back mercury thermometers from San Francisco medical facilities, businesses and residents, assist in their replacement with non-mercury alternatives and to ensure that the mercury is recycled or disposed in the manner that is most protective of human health and safety and the environment.

From *LEGISLATIVE DIGEST*, February 28, 2000



H-2985.1

## HOUSE BILL 2686

State of Washington      57th Legislature      2002 Regular Session

By Representatives Hunt, Rockefeller, Linville, Dunshee, Kirby, Sullivan, Upthegrove, Chase, Campbell, Romero, Lantz, Wood, Simpson and Kagi

Read first time 01/23/2002. Referred to Committee on Agriculture & Ecology.

AN ACT Relating to mercury reduction and education; adding a new chapter to Title 70 RCW; prescribing penalties; and providing effective dates.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF WASHINGTON:

(+ NEW SECTION. +) Sec. 1. The legislature finds and declares that:

(1) Mercury is a persistent and toxic pollutant that bioaccumulates in the environment..

(2) Consumption of mercury-contaminated fish poses a significant public health threat.

(3) Mercury is a potent neurotoxin and exposure to it can cause severe damage to a developing fetus. Mercury negatively impacts the nervous system and can lead to blindness, deafness, behavioral problems, and death.

(4) Mercury is present in a variety of products that are used in this state and is emitted from many industrial sources that are located in Washington.

(5) The state department of ecology has released a plan to reduce and eliminate persistent bioaccumulative toxics in the state, including mercury.

(6) Numerous states, including California, Oregon, Vermont, New Hampshire, Maine, Michigan, Minnesota, and Rhode Island have passed legislation to restrict mercury pollution and many other states are considering similar legislation.

(7) Cost-effective and readily available alternatives exist for mercury-added products.

(8) The intent of this chapter is to achieve significant reductions in environmental mercury, improve public awareness of mercury pollution and proper disposal of mercury, and improve the collection, removal, and disposal of mercury products to improve public health and the environment.

(+ NEW SECTION. +) Sec. 2. The definitions in this section apply throughout this chapter unless the context clearly requires otherwise.

(1) "Department" means the department of ecology.

(2) "Director" means the director of the department of ecology.

(3) "Health care facility" means a hospital, nursing home, extended care facility, long-term care facility, clinical or medical laboratory, state or private health or mental institution, clinic, physician's office, or health maintenance organization.

(4) "Manufacturer" means any person, firm, association, partnership, corporation, governmental entity, organization, or joint venture that produces a mercury-added product or an importer or domestic distributor of a mercury-added product produced in a foreign country. In the case of a multicomponent product containing mercury,

the manufacturer is the last manufacturer to produce or assemble the product. If the multicomponent product or mercury-added product is produced in a foreign country, the manufacturer is the importer or domestic distributor.

(5) "Mercury thermometer" means a mercury-added product that is used for measuring temperature.

(6) "Mercury-added button-cell battery" means a button-cell battery to which the manufacturer intentionally introduces mercury for the operation of the battery.

(7) "Mercury-added novelty" means a mercury-added product intended mainly for personal or household enjoyment or adornment. Mercury-added novelties include, but are not limited to, items intended for use as practical jokes, figurines, adornments, toys, games, cards, ornaments, yard statues and figures, candles, jewelry, holiday decorations, items of apparel, and other similar products.

(8) "Mercury-added product" means a product, commodity, or chemical, or a product with a component that contains mercury or a mercury compound intentionally added to the product, commodity, or chemical in order to provide a specific characteristic, appearance, or quality, or to perform a specific function, or for any other reason. Mercury-added products include, but are not limited to, mercury thermometers, mercury thermostats, and mercury switches in motor vehicles.

(9) "Retailer" means a retailer of a mercury-added product.

{+ NEW SECTION. +} Sec. 3. (1) A manufacturer of a mercury-added product that is sold, offered for sale, or distributed in this state must ensure that the mercury-added product is properly collected, transported, and recycled by doing one of the following:

(a) Establishing and funding, directly or with the help of a third party, a collection system through which the used mercury-added product can be returned for recycling or disposed of as hazardous waste; or

(b) Identifying existing collection systems through which the used mercury-added product can be returned for recycling or disposed of as hazardous waste.

(2) Every manufacturer of mercury-added products is financially responsible for the collection and recycling systems established under subsection (1) of this section. All collection and recycling must be conducted in a manner that prevents the release of mercury into the environment. Where a mercury-added product is a component of another product, the collection system must provide for removal and collection of the mercury-added component or collection of both the mercury-added component and the product containing it. All collection and recycling systems are subject to department approval. As part of the approval process, the department must ensure that all Washington residents have access to mercury collection and recycling systems that are convenient, comprehensive, and cost-effective.

{+ NEW SECTION. +} Sec. 4. (1) Every manufacturer of mercury-added products must ensure that the products are labeled in a manner to clearly inform purchasers: (a) That mercury is present in the item and that the item may not be disposed of or placed in a waste stream destined for disposal until the mercury is reused, recycled, or properly disposed of as a hazardous waste and does not become mixed with other solid waste or wastewater; and (b) of how to access systems for the collection, transportation, and recycling of mercury-added products. Where a mercury-added product is a component of another product, the product containing the component and the component itself must both be labeled. The label on the product containing a mercury-added component must identify the component with sufficient detail so

that the component may be readily located for removal.

(2) A manufacturer may apply to the department for an alternative to the requirements of subsection (1) of this section where strict compliance with the requirements is not feasible; or the proposed alternative would be at least as effective in providing presale notification of mercury content and in providing instructions on proper disposal. Applications for an alternative to the requirements of subsection (1) of this section must:

(a) Document the justification for the requested alternative;

(b) Describe how the alternative ensures that purchasers or recipients of mercury-added products are made aware of mercury content prior to purchase or receipt;

(c) Describe how a person discarding the product will be made aware of the need for proper handling to ensure that it does not become part of solid waste or wastewater;

(d) Document the readiness of all necessary parties to implement the proposed alternative; and

(e) Describe the performance measures to be utilized by the manufacturer to demonstrate that the alternative is providing effective presale notification and predisposal notification.

(3) The department may grant, deny, modify, or condition a request for an alternative to the requirements of subsection (1) of this section and approval of an alternative. The approval is for a period of up to two years and may, upon continued eligibility under the criteria of this section and compliance with the conditions of its prior approval, be renewed at two-year intervals.

(4) No person may sell, offer for sale, or distribute a mercury-added product, unless the product meets the labeling requirements of subsection (1) of this section. The labeling requirements of subsection (1) of this section do not apply to any mercury-added product for which federal law governs labeling in a manner that preempts state authority.

(+ NEW SECTION. +) Sec. 5. (1) A person may not knowingly dispose of mercury-added products in any manner other than by recycling the product or disposing of the product as hazardous waste.

(2) A person may not knowingly incinerate used mercury-added products.

(3) When a mercury-added product is removed from service, the mercury in the item must be source-separated for reuse or recycling, stabilized for retirement, or otherwise managed to prevent its release into the environment.

(4) A person may not knowingly send a multicomponent product containing a mercury-added product, that has been intentionally flattened, crushed, or baled, to a scrap processor, as defined in RCW 46.79.010, for recycling without first removing the mercury-added product. A scrap processor may accept a multicomponent product, knowing it contains a mercury-added product, if the processor takes responsibility for removing the mercury-added product. This subsection (4) does not apply to individuals disposing of mercury-added household products.

(5) A solid waste collector may not knowingly collect solid waste that contains one or more mercury-added products, unless the solid waste is collected at a permitted household hazardous waste collection facility for the purpose of recycling the waste.

(6) A solid waste collector must refuse to collect the contents of a solid waste container containing one or more mercury-added products, unless the solid waste is collected at a permitted household hazardous waste collection facility for the purpose of recycling the waste.

(7) An owner or operator of a solid waste management facility may

not knowingly accept for disposal solid waste that contains one or more mercury-added products, unless the waste is collected at a permitted household hazardous waste collection facility for the purpose of recycling solid waste. An owner or operator of a solid waste management facility must have appropriate notification and inspection procedures in place designed to prohibit mercury-added products from being disposed of at the facility. An owner or operator of a solid waste management facility must:

(a) Post signs at the solid waste management facility providing notice of the prohibition of the disposal and incineration of mercury-added products;

(b) Provide written notification to or have contractual agreements with the solid waste management facility's customers, providing notice of the prohibition of the disposal and incineration of mercury-added products; and

(c) Implement a procedure approved by the department for periodically monitoring incoming wastes to detect the presence of mercury-added products at the solid waste management facility.

(8) An owner or operator of a solid waste management facility must refuse to accept for disposal the contents of a solid waste container containing one or more mercury-added products unless the waste is collected at a permitted household hazardous waste collection facility for the purpose of recycling solid waste.

(9) Every two years the department must make available to the public information concerning the amount of mercury diverted from the solid waste stream that would otherwise be sent to solid waste management facilities for disposal or incineration.

{+ NEW SECTION. +} Sec. 6. (1) Except as provided under subsections (2) and (3) of this section, no person may sell, offer for sale, or distribute a mercury-added product unless the manufacturer of the product, or its industry trade group, provides notice to the director in writing of the manufacturer's intent to sell, offer for sale, or distribute the product. The notification must include: (a) A description of the product to be offered for sale, use, or distribution; (b) the amount of and purpose for mercury in each unit of the product; (c) the total amount of mercury contained in all products manufactured by the manufacturer; and (d) the name and address of the manufacturer and of a contact. The manufacturer must update and revise the information provided in each notification whenever there is significant change in the information or when requested by the director. The director may by rule define and adopt specific requirements for the content and submission of the notification.

(2) With the approval of the director, the manufacturer may supply the notice required under subsection (1) of this section for a product category rather than an individual product.

(3) Any mercury-added product for which federal law governs notice in a manner that preempts state authority is exempt from the requirements of this section.

(4) The director must review the information received under subsection (1) of this section and must ensure that the information is available for public inspection upon request.

{+ NEW SECTION. +} Sec. 7. (1) No person may sell, offer for sale, or distribute a mercury-added novelty. A manufacturer of mercury-added novelties must notify all retailers that sell the product about the provisions of this section and how to properly dispose of any remaining mercury-added novelty inventory.

(2)(a) No person may sell, offer for sale, or distribute a thermometer that contains mercury. This subsection (2) does not apply

to:

(i) An electronic thermometer with a battery containing mercury if the battery is in compliance with section 3 of this act;

(ii) A thermometer that contains mercury and that is used for food research and development or food processing, including meat, dairy products, and pet food processing;

(iii) A thermometer that contains mercury and that is a component of an animal agriculture climate control system or industrial measurement system until such a time as the system is replaced or a nonmercury component for the system is available; and

(iv) A thermometer that contains mercury that is used for calibration of other thermometers, apparatus, or equipment, unless a nonmercury calibration standard is approved for the application by the national institute of standards and technology.

(b) A manufacturer of thermometers that contain mercury must notify all retailers that sell the product about the provisions of this section and how to properly dispose of any remaining thermometer inventory.

(3) No person may sell, install, or reinstall a thermostat that contains mercury. A manufacturer of thermostats that contain mercury must notify all retailers that sell the product about the provisions of this section and how to properly dispose of any remaining thermostat inventory.

(4) No person may sell, offer for sale, or distribute a motor vehicle manufactured after January 1, 2003, if the motor vehicle contains a mercury switch, including mercury switches in antilock brake systems and in high intensity discharge lighting systems.

(5) A health care facility may not purchase mercury-containing manometers.

{+ NEW SECTION. +} Sec. 8. No school may use or purchase for use in a primary or secondary classroom bulk elemental or chemical mercury or bulk mercury compounds. Manufacturers that produce and sell bulk elemental or chemical mercury or mercury compounds must notify retailers and schools about the provisions of this section and how to dispose of the remaining inventory properly.

{+ NEW SECTION. +} Sec. 9. No later than January 1, 2003, the department, in consultation with the Washington hospital association and other interested parties, must develop a mercury phase-out plan to reduce or eliminate the purchase and use of mercury-containing products at licensed health care facilities starting July 1, 2003. The plan must be fully implemented by December 31, 2005.

{+ NEW SECTION. +} Sec. 10. (1) The department and the department of health must jointly develop a plan and proposed budget for a comprehensive public education, outreach, and assistance program for households, hazardous waste generators, municipalities, solid waste management districts, small businesses, health care facilities, scrap metal facilities, dismantlers, institutions of higher education, schools, and other interested groups. The plan must: (a) focus on the hazards of mercury, particularly those associated with the consumption of fresh and saltwater fish, the requirements and obligations of individuals, manufacturers, and agencies under this chapter, and voluntary efforts that individuals, institutions, and businesses can undertake to help further reduce mercury in the environment; (b) include a mechanism for providing information to retailers, wholesalers, and the public on what products contain mercury and information on possible nonmercury alternatives; (c) include a description of how manufacturers of mercury-added products and other

affected businesses will be involved in the development and implementation of a public education and technical assistance program; (d) describe how the program will assist the municipalities and solid waste management districts in developing, designing, and disseminating information for the public about labeled mercury-added products, the requirements of section 3 of this act regarding the source separation of waste mercury-added products, and the collection programs that are available to the public under section 3 of this act; and (e) describe how the program will be directed specifically at large public and private institutions that use and discard substantial numbers of waste mercury-added products, and at any other large users of those products. The plan and proposed budget must be submitted to the governor and the legislature by January 1, 2003.

(2) The department may develop an awards program to recognize the accomplishments of manufacturers, municipalities, solid waste management facilities, solid waste recycling facilities, household hazardous waste collection facilities, citizens, or entities that go beyond the minimum requirements established under this chapter and excel at reducing or eliminating mercury in air emissions, solid waste, and wastewater discharges.

{+ NEW SECTION. +} Sec. 11. (1) Notwithstanding other administrative rules, policies, and guidelines for the procurement of equipment, supplies, and other products, the department of general administration must, by July 1, 2003, revise its rules, policies, and guidelines to implement the purpose of this chapter.

(2) The department of general administration must give priority and preference to the purchase of equipment, supplies, and other products that contain no mercury-added compounds or components, unless there is no economically feasible nonmercury-added alternative that performs a similar function. In circumstances where a nonmercury-added product is not available, preference must be given to the purchase of products that contain the least amount of mercury added to the product necessary for the required performance and that are not prohibited from sale or distribution under section 6 of this act.

{+ NEW SECTION. +} Sec. 12. The department must review the effectiveness of this chapter and provide a report based upon that review to the governor and the legislature by December 1, 2006. The report must review the effectiveness of the programs required under this chapter and recommend ways to improve the programs.

{+ NEW SECTION. +} Sec. 13. A violation of this chapter or any rule adopted under this chapter is punishable by a civil penalty not to exceed one thousand dollars for each violation in the case of a first violation. Repeat violators are liable for a civil penalty not to exceed five thousand dollars for each repeat violation. Penalties collected under this section must be deposited in the state toxics control account created under RCW 70.105D.070.

{+ NEW SECTION. +} Sec. 14. The department must adopt rules to implement and enforce this chapter.

{+ NEW SECTION. +} Sec. 15. (1) Sections 1, 2, and 9 through 14 of this act take effect July 1, 2002.

(2) Sections 3 through 8 of this act take effect January 1, 2003.

{+ NEW SECTION. +} Sec. 16. Sections 1 through 15 of this act constitute a new chapter in Title 70 RCW.