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THE NEXT STEP
Toward a Healthier Future
A BI-MONTHLY NEWSLETTER OF THE SEBASTOPOL TOXICS EDUCATION PROGRAM

The Toxics Lurking In Electronic Waste

The Problem

From Bill Gates on down, we are all familiar with the constant "need" to buy the newest electronic devices, including phones, TVs, computers, CD players, and gadgets galore.

But then what do we do with the old ones? Most electronic discards (called "e-waste") **should not be placed in the trash**, but instead should be brought to special recycling facilities. That is because these high-tech devices contain toxics such as lead, cadmium, copper, and mercury that are known to be hazardous to humans, wildlife, and ecosystems – and can leach from landfills. For example, a TV or computer monitor contains up to 8 pounds of lead (ironically, put there to protect users from radiation). Of the lead in U.S. landfills, 40% is from electronics.

Where It Goes

Yet disposing of e-waste properly is just the beginning. What happens to it once it's collected?

The good news is that some items can be refurbished for reuse, while others can be disassembled for parts or raw materials.

However, this can be where the troubles begin. It's labor-intensive to separate metals out of things like printed circuit boards, wire, and lead-infused glass, and virtually impossible to do so without a toxic discharge. This increases the costs and hazards of recycling electronics. So about 50–80% of e-waste is shipped overseas, mainly to Asia, where companies will take waste more cheaply – and health, environmental, and labor laws are weaker.

Unfortunately, this e-waste is then often piled up, burned, or processed with few controls to protect workers or prevent further contamination. These mountains of our country's discarded technology produce toxic leaks and burning fumes that permeate the dump's community and beyond, deeply harming both health and the environment. Of course, this pollution can reach us too, through our air, water, and food, impacting our health (and all life forms) as well.

The Solutions

■ Because of e-waste's disposal costs, recycling places sometimes charge a small fee, especially for older items. While reasonable, this can discourage recycling. So, in 2003, the **California Electronic Waste Recycling Act** was passed to provide free e-waste recycling programs, the first such state program in the nation. This will be funded by adding a modest recycling fee to the purchase price of TVs and computers – thus "internalizing" this lifecycle cost. The Act will also restrict toxic e-waste exports and encourage manufacturers to reduce toxics and design devices for recycling. Implementation of this Act is currently in progress. (More about this and other recycling news is at <www.cawrecycles.org>.)

■ **Internationally**, **the Basel Ban** agreement was created to stop hazardous waste dumping on less-developed countries. Of the 62 countries needed, 49 have ratified this, with some already starting implemention. The U.S. has been opposing rather than ratifying this agreement. (For more info, see <www.ban.org>.)

■ **The European Union** (EU) has already put strong e-waste legislation on the books. (We don't hear much about it in our newspapers, do we?) Using the principle of Extended Producer Responsibility (EPR), they will require that manufacturers take back their products at the end of their useful "lives." This is already encouraging companies to design products with end recovery in mind – which can save them money too. **Another EU law** requires manufacturers to phase out use of certain toxics.

■ **In the U.S.**, a coalition has formed the **Computer Take Back Campaign**, to support EU-style legislation in the U.S. (See how you can support this at <www.svtc.org/cleancc/e_platform.htm>.)

What Can We Do?

■ **Don't put electronics in your garbage or recycling bin.** See box (over) for proper disposal options.

■ **Use equipment longer**, rather than continually buying new models, and **share equipment** with others, to make fuller use of it.

■ **Buy used electronics** (CRC and Sonomax are sources; see box, over).

■ **Pressure our government** to: stop e-waste dumping and ratify the Basel Ban (Decision III/1); require manufacturers to use less-toxic materials; and implement Extended Producer Responsibility. **Support groups** acting on these issues.

■ **Add more non-electronic activities** into your family's lives.

■ **Help spread the word** on this important topic. It's our responsibility. And **write us** with your solutions, so we can share them with others.

~ Rebecca Dwan & Patricia Dines

See "How to Recycle Your E-Waste," over ➥

How to Recycle Your E-Waste

■ **Offer unneeded equipment for reuse** to friends, email lists, or schools. You can also offer it to:

• **United Way**, 528-4483, which then offers it to 112 agencies

• **Sonomax**, post a free ad at <www.recyclenow.org/sonomax>.

■ **Drop** items at these locations. (Call to find out the items accepted, hours, fees, and tax deductibility.)

• **Old Town Recycle** (SR) 544-6176 (most electronics; free)

• **Printers and More** (Petaluma) 765-9573 (and computers; free)

• **Rapid Refill Ink**, dropoff boxes around the county, including at Sebastopol's Whole Foods (for cell phones, PDAs, and pagers; free)

• **Computer Recycling Center (CRC)** (SR) 570-1600 www.crc.org (most free; some older items are $5-10; a few items are 50¢/lb.)

• **County Refuse Disposal Sites** (computers and TVs; $25 each)

■ **Ask the manufacturer** if they have a take-back program.

■ **Watch** for free take-back programs at electronics stores.

For more electronics recycling options and information, see your phone book's Recycling Guide and <www.recyclenow.org>.

ABOUT STEP

The Next STEP (TNS) is published six times a year by the **Sebastopol Toxics Education Program** (STEP). **STEP is a project of the City of Sebastopol**, implemented by local citizen volunteers. **STEP's mission** is to support city residents in reducing their toxic use and exposure, creating a healthier and safer Sebastopol for everyone.

Past issues of TNS are at <www.ci.sebastopol.ca.us>; look under Programs. **An ongoing index by topic** is at <www.healthyworld.org/STEPIndex.html>.

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Clearing the Air About Mowers

This just in from the Union of Concerned Scientists (UCS):

"Running a typical gas-powered lawn mower for an hour generates as much smog-forming pollution as driving a car for 13 hours."

I ran my eye across this little article in a recent UCS mailing and did a double-take. Not only is one producing a whole lot of exhaust in that hour of lawn mowing, but one is walking briskly and breathing deeply a foot or two from the smoke. We used to have one of those mowers and I would get dizzy, but put up with it to get the job done. I used to think that the manufacturer just wouldn't make something dangerous . . . well, these days, I'm a bit more suspicious.

It turns out that, generally, the small two-stroke engines in typical mowers, generators, outboard motors, and jet skis are among the most polluting engines around. When these engines are used on the water, as much as 30% of the fuel goes into the water unburned. The four-stroke engines are much more fuel-efficient. Or, of course, we can use a push mower, or even an electric one.

For more information, go to <www.ucsusa.org> and look for "two-stroke engine." There's lots of other great info there as well.

~ Rebecca Dwan

Swedish Study Shows Power of Prevention

A 2003 Swedish study shows that **reducing a community's toxic use can lower the incidence of associated diseases.** This study observed a correlation between Sweden's policies to reduce chemical exposure with **fewer cases of non-Hodgkin's lymphoma** (NHL).

According to Sweden's National Swedish Cancer Registry, between 1971 to 1990, Sweden's NHL rate increased each year by 3.2% for men and 3.1% for women. However, between 1991 and 2000 – roughly 20 years after restrictions on a number of chemicals associated with NHL – **the increase became a decrease** (-0.8% for men; -0.2% for women). Since NHL can develop decades after exposure, an emerging trend in the cancer now is likely the result of environmental factors decades ago.

NHL is a group of cancers of the lymphatic system (part of the immune defense system). NHL can strike various body sites, including lymph nodes, chest, digestive tract, brain, bone marrow, and skin. It is the fifth most common cancer in the U.S., and the third fastest increasing.

Numerous studies have shown correlations between NHL and exposure to toxics, including organic solvents and persistent organic pollutants (POPs) such as organochlorine pesticides, PCBs, and dioxins. Exposure to these chemicals is widespread, including through food.

The Swedish Environmental Protection Agency reports that use of these chemicals peaked during the 1960s and 1970s, after which concentrations of PCBs dropped significantly in the environment and food chain.

Dr. Ted Schettler, of the Science & Environmental Health Network, said the study is "good news, because it shows that **yet another cancer can be prevented by reducing exposures to cancer-causing chemicals**, rather than [focusing] almost exclusively on cures pursued for decades by the health establishment."

This study also reinforces the importance of the **2001 Stockholm Convention**, which will ban the 12 worst POPs worldwide. The U.S. signed it in 2001, but hasn't ratified it; we still need to pass implementing legislation. (The Bush Administration's unacceptable implementing bill was just stopped.) To support U.S. ratification, see <www.panna.org>; click Search and enter "POPs treaty".

~ Patricia Dines

SOURCE: Swedish Study Shows Power of Prevention, Pesticide Action Network, 9/8/03