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As Old Electronics Pile Up, Some States Crack Down

By EVAN RAMSTAD, Staff Reporter of THE WALL STREET JOURNAL

MINNEAPOLIS -- On the third floor of an 84-year-old downtown warehouse here, two dozen workers wielding hammers and drills are ripping apart television sets. After reducing the sets to rubble, they sort wires, plastic, wood and circuit boards. "We run it like a TV-repair shop in reverse," says one of the workers, Yusuf Mustafaa.

The methodical destruction is one way of dealing with an increasingly difficult -- and potentially dangerous -- problem: the nation's mounting pile of electronics trash.

With sales of TVs, wireless phones, computers and monitors at record levels, consumers are junking their outmoded models by the carload -- replete with harmful metals, such as nickel in batteries and lead in TV tubes. The refuse is expected to grow in this decade as consumers replace generations of televisions with new digital models.

Keeping the cast-off electronics out of landfills is a slow and costly process that hasn't yet won widespread support, but environmentalists and regulators have been making some progress. In April, Massachusetts banned public disposal of TVs and computer screens, urging residents to take advantage of an ad hoc network of charities and recyclers. Florida and Connecticut are considering the same thing. Japan and some European nations also regulate the disposal of electronic goods.

Some parts of Minnesota have been recycling TVs for years. But the state hasn't imposed such a ban on disposal, officials say, because it doesn't want to adopt a statewide regulation without an economical process that entices manufacturers and waste companies to share costs. "No single one of us is going to take on this burden alone," says Sherry Enzler, director of the state's Office of Environmental Assistance.

Still, Hennepin County, Minnesota's largest, has been recycling TVs since 1992 and holding curbside collection in Minneapolis since 1997, which makes it easy for homeowners. "It's so convenient,"

says Jennifer Bachman, who disposed of one of her four TVs last month when it didn't sell at a garage sale.

But the effort costs the county about \$1 million a year, or \$20 a TV, says Mike Brandt of the county's environmental office. Last year, about half the cost went to PPL Industries, a nonprofit, job-training organization that runs the dismantling operation in the downtown warehouse.

On a recent day at the warehouse, Mr. Mustafaa wheeled a four-foot-tall carton of electrical wires away from a noisy room where men were taking sets apart with drills and hammers. Earlier, he loaded 44 similar cartons of TV tubes into two semi-trailers for shipment to a lead smelter. Last year, the crew took apart 851 tons of products, mostly TVs. Hennepin County paid a lead smelter about \$300,000 last year to take the glass tubes. The smelter separates the lead and sand in the glass for its own use.

Last fall, Minnesota's Office of Environmental Assistance tried a bigger program, joining Waste Management Inc. and the U.S. units of Sony Corp. and Matsushita Electric Industrial Co. to collect electronics gear in 32 of the state's 87 counties for three months. For the 8,700 TV sets that came in, they calculated the recycling cost at \$10 to \$15 a set.

Part of the problem was the age of the sets; 47% were made before 1980, when wood cabinets were common. Those sets cost more to recycle because the wood can't be reused, and most have a transformer containing hazardous polychlorinated biphenyl, or PCB, which requires special handling. In addition, manufacturers are choosy about the glass they take back. And to complicate matters further, the U.S. Environmental Protection Agency classifies a broken picture tube as hazardous material, subject to stricter transportation rules and higher costs.

Mark Small, vice president of environment, safety and health at Sony Electronics Inc., says his goal is to drive the cost down to around \$2.50, which is about the cost of dumping a TV in a landfill. "If it doesn't make business sense, it's a tax," he says.

However, having seen results from the broader Minnesota project, Sony says it will accept more used tubes at its glass plant near Pittsburgh. Matsushita is encouraging its glass suppliers to do the same and is reducing the variety of plastics in its sets, a step that should make them easier to recycle in the future, says David Thompson, general manager of its U.S. corporate environmental department.

But Waste Management, the nation's biggest waste-collection company, is still trying to decide if it can make TV recycling pay off. Even if TV-glass manufacturers take back more tubes, says George Wolfson, a manager in Waste Management's Asset Recovery Group subsidiary, "we're being cautious that we don't drown ourselves in materials we can't get to a proper home."

For other states, the first hurdle is just getting the TVs to a central spot. The nation's largest TV-recycling company, Environcycle Inc. of Hallstead, Pa., gets most of its sets from the junk piles of TV manufacturers. Just 10% comes from community collections, says Vice President Greg Voorhees, although he expects that to grow as more states impose limits on dumping.

In Massachusetts, rather than rely on a formal pickup program, officials are counting on charities such as the Salvation Army and Goodwill to accept and sort electronic goods before sending them on to a state-paid recycling firm. They expect such agencies will recover costs by reselling some of the products, particularly PCs, that still work. During the first six months of the year, the state's recycler took in 505 tons of electronic equipment, compared with 202 tons in the same period last year.

Some charities are giving the idea a try, but others have found it unfeasible. "We were slated to do that. It didn't work out," says Glen Chandler of the Salvation Army in Springfield, Mass. "We don't have the manpower."

Robin Ingenthron, a former staff member of the state's Department of Environmental Protection who now runs Vermont Retroworks, a computer recycler in Middlebury, Vt., calculates that such operations will turn a profit when some goods are resold. But he assumes consumers will drop off items and pay a \$5 recycling fee. And his figuring becomes optimistic when PCs are left out of the mix. With just TVs, he says, the economics become "a little more iffy."

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