

A Response to HP's Argument for Recycling versus Reuse

By Tricia Judge, Int'l ITC

The environmental benefits of purchasing a remanufactured cartridge are so apparent as to appear incontrovertible. So, when Hewlett-Packard (HP) continues to assert its environmental superiority over aftermarket cartridges, one is tempted to laugh out loud.

Some folks at a large federal agency recently forwarded a collection of HP propaganda to me. In particular, they marveled at HP's claims to be the environmentally superior choice when it comes to buying imaging supplies. One document had the preposterous title "Reuse vs. Recycled Leave Behind." A response to some of its amazing claims was called for.

What happens to cartridge components removed during remanufacturing?

What they say: "When remanufacturing print cartridges, many remanufacturers replace worn or damaged parts, such as the organic photoconductor (OPC) drum and cleaning blade. What happens to these removed parts is unclear and can vary from remanufacturer to remanufacturer."

What we say: OPCs and cleaning blades are often reused along with other parts of a remanufactured cartridge. Hundreds of thousands of dollars have been invested within the industry to find ways to do just that. The Rochester Institute of Technology has developed systems that inspect, analyze and approve or reject both OPC and wiper (cleaner) blades for reuse. These systems have been employed at most of the world's largest remanufacturing facilities. Further, Static Control Components, one of the largest suppliers to the remanufacturing industry, recently developed a drum recoating system. In addition, many remanufacturers developed their own systems for determining which blades, drums and other components can be reused, and have done so for decades.

Where do remanufacturers get used cartridges?

What they say: Cartridge remanufacturers and empty-cartridge brokers buy and sell used cartridges from countries all over the world. This practice typically requires them to ship cartridges over long distances-consuming fossil fuels along the way.

What we say: Most aftermarket industry members collect cartridges and remanufacture them locally. One chain of remanufacturers, Cartridge World, set out to determine its greenhouse gas footprint. In March 2007, the independent firm of Brown and Wilmanns Environmental LLC performed a "simple

carbon footprint analysis" for Cartridge World USA, which had roughly 620 locations across North America.

The study focused on the environmental cost of transporting cartridges from the OEM to the consumer versus that of Cartridge World. The results were staggering: The carbon dioxide produced in transporting the OEM cartridge was, on average, 70 percent greater than the cost of transporting the Cartridge World cartridge.

Moreover, this analysis pertained only to the cost of transporting the cartridge; it did not address the environmental impact of the oil used to produce the new OEM cartridge in the first place. Had the greenhouse gas footprint analysis included that, the aftermarket would have been favored by an exponentially greater factor.

The recent award of a contract to Clover Technologies by the U.S. Postal Service (USPS) also shed a harsh light on HP's claims. The contract allows Clover to recover the empties dropped at USPS offices and Clover pays for the costs of recovery. This refutes HP's claims that OEM recovery efforts are superior and demonstrates that US remanufacturers are searching for ways to recover empties locally and efficiently.

How many cartridges does HP recycle?

What they say: Between 1991 and 2006, more than 140 million HP LaserJet and inkjet print cartridges (more than 250 million pounds) were returned and recycled through HP's Planet Partners program. No Original HP cartridges returned through Planet Partners are sent to a landfill.

What we say: We applaud HP's efforts to recycle the cartridge waste it originally produced. However, the recycling of 140

Guiyu, China has become the world's dumping ground for what is defined as e-waste and printer cartridges. Sadly, these cartridges were originally bound for recycling.



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million cartridges over 15 years pales in comparison to the reuse of 105 million cartridges in 2006 alone. That equates to 84,000 tons of industrial-grade plastic being reused annually, not just recycled, thanks to remanufacturing. Reuse is the highest form of recycling. Recycling requires the shredding or melting down of the plastic and metals. No such energy-consuming activities are required when a product is reused.

And all of HP's data is based on three erroneous premises:

1. Remanufacturers do not reuse cartridges more than once.
2. Remanufacturers do not have an end-of-life recycling program in place for cartridges that cannot be reused.
3. Hewlett-Packard reacquires and recycles the bulk of its cartridges.

Nowhere is the latter argument more clearly refuted than in places like Guiyu, China. Guiyu has become the world's dumping ground for what is defined as "e-waste." Sadly, the cartridges that end up here were originally bound for recycling. Heaps of empty cartridges line the streets and riversides after being scavenged only for their toner. Once the toner is swept out by fingers or paintbrushes, the cartridges and other printer parts are burned – fouling the air – or are discarded along the Lianjiang River. This practice of low-level recycling and then dumping has rendered local drinking water dangerous; the river contains 200 times the acceptable levels of acid and 2,400 times the acceptable levels of lead.

Many residents have developed respiratory problems. A local school survey found that 100 of the 1,000 students had severe asthma or other respiratory problems. The residents here have to choose between utter poverty and pollution levels akin to poisoning. And the net gain for the average laborer? Roughly \$1.50 per day.

As *Imaging Spectrum* has covered before, it is clear that these empties come from U.S. brokers that have been collecting large quantities of "virgin," or once-used OEM products. Such cartridges are the lifeblood of the cartridge remanufacturer, but have been diverted to this Chinese cartridge graveyard for the simple reason that they needed to be removed from the US marketplace for competitive reasons.

As for HP's other contentions upon which it bases its data, they too are flawed.

Many companies remanufacture cartridges for several cycles. Even more have recycling efforts that would make their local environmental activists proud. "We are one of several remanufacturers in San Diego that remanufactures cartridges multiple times, each time avoiding further burden to our rapidly filling landfills," said Paul Hawker from Laser Saver, Inc. "I would welcome the opportunity to tell the remanufacturers' side of the story. Each month we recycle the equivalent of three compact cars. Our facility is designed for impressive tours, and I would be happy to show that we 'walk the talk,' while HP only talks."

Unfortunately, some California state agencies have been lured by the talk of HP's Planet Partners Program (see page 42 in the May issue for "HP and State of California Initiate Environmental Printing Program"). On the upside, some other states have been

suspicious of the notion that new is better than reused. The Texas Department of Transportation is a shining star of an example. "TxDOT has been using remanufactured toner cartridges that meet its stringent standards for more than five years. This experience has shown that using remanufactured cartridges not only reduces landfilling and material consumption, but also saves 43 to 85 percent compared to new cartridges," said Samuel Reyes, recycling services coordinator for TxDOT. "In the next two years, TxDOT will purchase almost 40,000 remanufactured toner cartridges and save about \$2 million—about half of the purchase price."

HP's environmental goals are laudable. But in the arena of cartridge sales, those goals sometimes run in direct conflict with the company's number one objective: to make a profit. The engine that drives HP's profitability is supplies sales. So, HP and the other OEMs have employed a host of impediments to remanufacturing, including what the aftermarket calls antirecycling devices (ARDs).

ARD corporate practices, which include smart chips and other deliberate engineering tactics to prevent remanufacturing, are now evident in almost every cartridge and printer manufactured.

The aftermarket has developed solutions for the chips, but these solutions increase the price of the aftermarket cartridge. And a change in firmware can render some of these solutions worthless, frustrating both the aftermarket suppliers and the consumer alike. These chips serve little or no purpose other than to monitor cartridge usage and assure that an OEM cartridge is used. That is what makes them ARDs.

HP has also embraced the prevalent OEM practice of introducing new printers with starter cartridges, or "A" cartridges. These cartridges hold a fraction of the ink or toner of their replacement cartridges. As a result, they are not conducive to refilling, remanufacturing or reuse, and are a huge waste of plastic and metals. They exist merely to dupe the buyer into purchasing a lower-priced printer.

Finally, HP rampantly releases new printers by the dozens. In the late 1990s, new printer models were released slowly; 20 printer models represented 70 percent of the printing marketplace. Remanufacturers then were able to create solutions for new technological advancements and to bring a competitive alternative to the customer quickly.

To regain supplies market share, HP started releasing printers in a rapid-fire manner. Today, remanufacturers deal with hundreds of printers and must manage ways to quickly offer aftermarket solutions for all these new models. With many of the new models bearing only slight changes to their cartridges, it is clear that these alterations have been made only to frustrate aftermarket solutions.

So the argument continues, but the response remains unassailable. HP is entitled to lay claim to its environmental efforts; the aftermarket is entitled to lay claim to its green benefits. And there are arguments on both sides for collateral damage. But there is an obvious bottom line: reuse beats recycled every time.