

Testimony of Holly Chapell
Director of Government Affairs, Umicore USA
before the
U.S. International Trade Commission
hearing on
Investigation 332-528 - Used Electronic Products: An Examination of U.S. Exports
May 15, 2012

Thank you for the opportunity to appear before you today. My name is Holly Chapell, and I serve as the Director of Government Affairs for Umicore USA.

Umicore is a global materials technology company, with annual sales of some \$20 billion. The company focuses on areas where we can best use our expertise in materials science, chemistry, metallurgy, and recycling. We produce metals-based materials for: rechargeable batteries for laptops, mobile phones and electric cars; emission control catalysts for heavy duty and passenger vehicles; photovoltaic systems; fuel cells and other end uses. We are also the world's leading recycler of precious metals containing materials.

The company had a long history in mining and metals smelting prior to our focus on materials. In the last 15 years, we have developed a closed loop business model that allows us to recycle products containing these materials, and as a result, we obtain more than 50% of the metals we consume. Umicore's recycling facility is often the destination for legal shipments of electronic waste, or "e-waste." We bring in 350,000 MT per year of precious metals containing materials to our plant in Belgium. Part of that tonnage is circuit boards, end of life cell phones, and appliance electronics. Our expertise focuses on the end refining that is capable of extracting gold, silver, copper, platinum group metals and 10 other metals. We are what you might call an "appropriate recycler."

An appropriate recycler of electronics at end of life is concerned with extracting the metal content in the safest, most energy efficient way, while ending up with the lowest amount of unusable material possible. Additionally, attention to the environment is also of utmost importance in the process, including keeping emissions as low as possible. In other words, appropriate recyclers take full responsibility towards its workers, its customers, and its environment.

Illegal shipments of electronics frequently go to countries where the labor force uses rudimentary methods of metals extraction that may involve safety and environmental issues as well as poisoning of the workers themselves. Moreover, it is a fact that when metals are extracted by hand in this way, the yield is only a small percentage compared to when an appropriate recycler uses environmentally sustainable, high-tech methods.

In the United States, there are currently two respected certification standards – the Basel Action Network (BAN) and R2 Recycling Solutions. Both are dedicated to certifying recyclers of e-scrap that they determine handle used electronics in a proper fashion. Many other countries around the world subscribe to the Basel Convention (no direct relation to BAN), a series of guidelines outlining how to handle and ship hazardous materials such as used electronics.

Umicore sees it going a step further and supports the work being done in Europe to certify the process of end refining. By end refining, we mean processing the end of life electronics and e-scrap in our furnaces after they are dismantled, pre-processed and shipped to us with the aim to recover the metals in a purified form. The result of this end refining is precious metals and base metals, ready to be re-used all over again. In fact, these metals are infinitely recyclable. This cycle – the closing of the loop -- occurs again, and again, and again, as the precious metals and base metals go back to the consuming industries and are put back into electronics -- which at end of life, are again sent to us for another round of end refining.

It would be ideal if these tough, exacting certifications of the few large-scale end refiners of used electronics could be tied to the certification programs of BAN and/or R2 to create a type of cradle-to-grave framework for the handling, dismantling, pre-processing and end refining of used electronics.

Collection is not part of Umicore's focus area, so it is difficult for us as a company to determine with accuracy the quantity of used electronics exported from the United States. Nor are we able to say with certainty what percentage goes to appropriate recyclers and what percentage to non-sustainable recyclers. Our best guess on export numbers would be for tonnage of precious metals and copper bearing scrap, but not steel, aluminum or pure copper. There are approximately 35,000 metric tons per year of precious metals and copper bearing scrap going each to Asian and European smelters and perhaps another 50,000MT per year of mostly lower grade going to Xstrata Copper. But we know that right now, the world hosts only five final-step recyclers – end-refiners – so we believe a huge percentage of materials shipped overseas are not appropriately recycled.

How to effectively control exports of e-waste is not simple, but the "Responsible Recycling Act", which is federal legislation that was introduced last year in the House and Senate, provides a critical step in the right direction.

Requiring proof that the shipment is being sent to a country that accepts this type of scrap and will appropriately recycle it is not foolproof, but may help. Inspections of outgoing shipments to verify content of containers may also help. But why not support the expansion of the e-waste collection and dismantling industries in the United States and create only the kind of waste that is ready for hi-tech recycling instead? Thousands of jobs could be available, with varying levels of expertise possible, in the collection, dismantling, and pre-processing of used electronics. Our policies should be designed to incentivize this build-out of collection, dismantling, and pre-processing, leading to e-scrap that can be sent legally to end refiners who will appropriately and sustainably finish the recycling process.

Why landfill electronics when we can mine them for the more than 40 metals they contain? Why take the chance of hazardous metals and materials leaching into the ground when we can instead collect the electronics and process them, dismantle them, and send to appropriate recyclers for end-processing and eventual re-use of the metals contained? Why landfill or export electronic devices when they can be separately collected and dismantled/pre-processed, creating thousands and thousands of additional jobs as well as attractive opportunities for new businesses?

Thank you for the opportunity to provide testimony before you today and I stand ready to answer any questions you may have.

Healy A. Chappel
Director Government Affairs
Umicore USA Inc.
May 15, 2012