The expanding regulation of used and end-of-life electronic products

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Governments worldwide are expanding the regulation of used and end-of-life electronic equipment. These efforts are taking the form of new or expanded Extended Producer Responsibility (EPR) laws, more stringent regulation of collection and recycling activities under existing waste legislation, and new controls on the transboundary movement of e-waste for recovery. Public concern over the mismanagement of used and end-of-life electronics, particularly in some developing countries, remains a key driver of this regulatory trend. In addition, governments are interested in ensuring the safe and efficient recovery of precious metals, plastics, and other valuable materials that can be recovered from e-waste and used in future manufacturing activities.

Companies handling used or end-of-life electronic products are faced with a growing patchwork of local, subnational, and national laws in many countries governing the collection, handling, storage, shipment, and recovery of used and end-of-life products. International agreements, such as the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (Basel Convention or Convention), are also evolving. This, in turn, is prompting some governments to take a more expansive view toward the regulation of certain types of e-waste shipped across international borders. Finally, voluntary company standards and the emergence of widely recognized recycling certification standards such as the Responsible Recycling (R2) Standard and e-Stewards can place additional obligations on companies seeking to responsibly manage used and end-of life equipment. See www.epa.gov/epawaste/conserve/materials/ecycling/certification.htm (last visited Aug. 14, 2014).

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A recurring question under many legal regimes is the extent to which used products managed for reuse, including reuse after repair, should be considered "waste" under relevant legal regimes. Beyond the threshold question of what is and is not a waste, companies and governments often need to assess the extent to which certain types of electronic products might be classified as "hazardous" at the end of their life. More than ever before, these issues must be addressed not only by recyclers and waste handlers, but by product manufacturers and retailers as well. This article highlights recent legal developments illustrating these trends.

Assessing the generation and flow of e-waste

Governments, academics, nongovernmental organizations (NGOs), and industry have increased efforts to better understand the generation of and international trade in e-waste, particularly e-waste exported to developing countries. A peer-reviewed study published in June of this year in the journal Environmental Science & Technology estimated that approximately one-quarter of the e-waste generated in Organisation for Economic Co-operation and Development (OECD) countries is exported to China, India, or Western Africa. Within the United States, a 2013 Massachusetts Institute of Technology study concluded that 66 percent of used electronics are collected and, of that amount, 3.1 percent are exported.

See http://pubs.acs.org/doi/abs/10.1021/es5021313 (ES&T study) (last visited Aug. 5, 2014); www.step-initiative.org/tl_files/step/_documents/MIT-NCER%20US%20Used%20Electronics%20Flows%20Report%20-%20December%202013.pdf (MIT study) (last visited Aug. 5, 2014). A 2013 United States International Trade Commission (ITC) study concluded that (1) tested and working products represented the majority of U.S. exports of whole, used electronic products and (2) over half of used U.S. electronics exports are sent to OECD countries. The ITC estimated that the export of repaired or refurbished electronics from the United States is a $1 billion per-year industry.

The Basel Convention

One legal instrument that has attracted recent attention in this area is the Basel Convention. The Convention is a global agreement governing the transboundary movement of hazardous wastes, including certain types of e-waste. It has been ratified by 180 countries and the European Union. The Convention imposes stringent, prior-written notification, consent, documentation, and management requirements on covered waste shipments. In many instances, it bans trade in covered wastes. In recent years, e-waste has emerged as a priority waste stream for governments under the Convention.

The Convention provides wide latitude for governments to classify e-waste as hazardous or nonhazardous under its terms and annexes. Moreover, wastes that are considered hazardous under the laws of the exporting, importing, or any transit countries must also be managed as "hazardous wastes" under the Convention. The United States has signed but not ratified the Convention. As a result, many countries that have ratified the agreement are barred from trading in covered wastes with the United States, absent a so-called "Article 11" agreement.

Currently, parties to the Convention are attempting to develop Technical Guidelines to inform the approach governments are to take in determining when used electrical and electronic equipment should be deemed a "waste" under the Convention. The outcome of these negotiations will have significant implications for how governments require companies to manage used products returned under warranty, products exported for nonwarranty repair or refurbishment, movement and refurbishment of leased equipment, and the testing of a wide range of electronic products, including medical devices, for root-cause analysis.

Parties have struggled in recent years to find a consensus approach on the so-called "waste/non-waste" issue. At the Eleventh Conference of the Parties to the Basel Convention (COP-11) in 2013, governments put forward a range of proposals that would, to varying degrees, recognize certain shipments of used equipment for repair or refurbishment as non-waste, provided certain conditions related to documentation and packaging are satisfied. A number of governments have taken the view that a relatively large universe of used equipment shipped for repair or refurbishment should be classified as wastes subject to the Convention. If adopted, this view could severely disrupt international trade in used parts for reuse, warranty returns, and other shipments of used equipment. Industry trade groups have asserted that such an approach departs dramatically from the current scope of the Convention and could exacerbate the e-waste problem by creating new barriers to the legitimate repair, refurbishment, and reuse of electrical and electronic products.

Negotiations on the draft Technical Guidelines will continue at an Open-Ended Working Group meeting in September 2014 in Geneva, Switzerland, and a revised draft of the Technical Guidelines will be presented to governments at COP-12 in May 2015 for possible adoption.

Extended producer responsibility legislation

Following the European Union's adoption of the Waste Electrical and Electronic Equipment Directive (WEEE Directive) in 2002, which made the producers of electronic products responsible for the collection and recycling of end-of-life equipment in Europe, countries worldwide have moved quickly to adopt similar EPR legislation. See http://ec.europa.eu/environment/waste/weee/legis_en.htm (last visited Aug. 5, 2014). In the ten years since the EU enacted the WEEE Directive, over two dozen countries around the world have adopted national or significant state/provincial legislation imposing new "take-back" or related obligations on producers or importers of certain types of electronic products. These laws often require companies to file waste management plans, meet collection and recycling targets, and satisfy other requirements applicable to the collection, transportation, storage, and recycling of end-of-life electronics.

State e-waste legislation and enforcement in the United States

In recent years, states have led the push for expanded regulation of e-waste in the United States. A patchwork of new state laws has imposed responsibilities on manufacturers and retailers of electronics, rechargeable batteries, and other consumer products. Currently, 25 states and Puerto Rico have enacted e-waste legislation requiring manufacturers and retailers of electronic products to fund or participate in electronics take-back and recycling schemes (California's recycling program is unique in that it is funded by consumers). These states have various registration, management plan, and reporting requirements, and many impose mandatory recycling targets backed up by fines. These state laws vary widely in scope, with some only covering electronics with screens of a certain size and others also applying to a wide variety of electronics, including computers, monitors, televisions, cell phones, game consoles, servers, and cable receivers.

Furthermore, several states have laws that impose collection and recycling obligations on manufacturers and retailers of rechargeable batteries and, in some cases, of products containing rechargeable batteries. Additional states, including Washington and Oregon, are currently considering similar legislation. Most recently, an industry group has proposed model state legislation that would require producers of primary and rechargeable batteries to submit and comply with battery stewardship plans that mandate specified collection rates for covered batteries. The model legislation follows the Vermont legislature's passage of the first law in the country that would mandate extended producer responsibility for the recycling of single-use primary batteries.

As these programs mature, states have on occasion discovered the illegal stockpiling or abandonment of collected e-waste, in particular waste cathode ray tubes (CRTs). For example, in February 2014, Dlubak Glass Co. paid $120,000 in a consent judgment with the Arizona Department of Environmental Quality in response to alleged violations of Arizona hazardous waste regulations at its Yuma, Arizona, facility. Arizona law requires CRT recyclers to conduct all CRT storage and processing activities within a building with a roof, floor, and walls. State inspectors found multiple alleged violations at the Dlubak facility, including storage of broken glass in open, unlabeled cardboard containers, washing of CRT glass outside on concrete pads, broken CRT glass strewn throughout the 5-acre facility, and lead contamination in soils extending into a neighboring orchard.

California has also been actively enforcing against retailers for allegedly mishandling used or damaged consumer products that qualify as hazardous wastes under California law, including certain e-wastes, batteries, pharmaceuticals, and automotive products. Penalties levied between 2010 to 2013 range from $3 million to $17 million, plus supplemental environmental projects and reimbursement of attorney's fees and investigation costs. Recent settlements and announced enforcement actions suggest that robust enforcement of state waste legislation in the context of managing used products can be expected to continue.

Action at the federal level

The Obama administration convened an Interagency Task Force on Electronics Stewardship in 2010 to improve the design and management of electronics. The program's goals include building incentives for design of greener electronics, increasing collaboration between the government and the electronics industry through voluntary partnerships, and ensuring that the federal government leads by example in the electronics stewardship field. Towards that end, this March, the General Services Administration published proposed amendments to the Federal Management Regulations that would provide for the safe handling and disposal of electronic equipment belonging to the federal government. The proposed rule would require federal agencies to dispose of nonfunctional electronics through certified recyclers on whom they conduct due diligence. The proposed rule would also prohibit agencies from disposing of electronics through landfill or incineration.

The U.S. Environmental Protection Agency (EPA) has also stepped up enforcement of Resource Conservation and Recovery Act (RCRA) rules governing the export of used CRTs for reuse or materials recovery. Due mostly to high lead content, end-of-life

CRTs are often classified as hazardous under RCRA. A combination of export restrictions and a lack of domestic processing capacity has led to stockpiling problems. To encourage the reuse and recycling of used CRTs, EPA streamlined applicable management requirements in 2006 by issuing the so-called CRT Rule. Specifically, used CRTs destined for reuse or recycling are excluded from the definition of solid waste for domestic purposes, provided that certain requirements are met. Additionally, used CRTs exported for recycling or reuse are excluded from the solid waste definition if different conditions are met. Citing a need for better data regarding exports of CRTs, EPA expanded reporting and notification requirements under the CRT Rule this summer.

Over the past two years, EPA has initiated a number of civil and criminal enforcement actions against companies and individuals alleged to be exporting CRTs in violation of federal requirements. For example, in 2013, EPA fined a Michigan company $2 million and sentenced an executive to over two years in prison for illegally storing and disposing of hazardous waste, as well as falsifying factory labels before exporting used electronics to the Middle East and Asia. In another case, a federal court ordered a Colorado recycling company to pay a $4.5 million fine and sentenced its president to a prison term of more than two years after being convicted of illegally exporting CRT glass and other e-waste to China and other countries.

Congress is also considering a bill that would ban the export of "restricted electronic waste" from the United States to developing countries and impose significant procedural requirements on the export of certain other used (non-waste) electronics to developing countries. The Responsible Electronics Recycling Act has gained 22 cosponsors (17 Republicans and five Democrats) in the House of Representatives and was recently introduced in the Senate. The scope of "restricted electronic waste" would include used CRTs, mercury-containing lamps, certain batteries, equipment containing certain chemicals, and other equipment designated by rule by EPA. The bill would establish several limited exceptions to the export ban, although taking advantage of some of the exemptions would require compliance with significant new procedural requirements.

In sum, product manufacturers and retailers, as well as companies that handle used and end-of-life electronic products, are subject to an expanding web of requirements governing collection and management that can vary significantly within and between countries. As these legal schemes mature, governments in many instances are turning their attention and resources toward enforcement. Ensuring compliance and reducing

business disruption risk will in many instances require companies to develop national and regional compliance approaches, particularly with regard to the implementation of voluntary or mandatory product take-back schemes or large-scale refurbishment activities. Keeping pace with these fast-evolving national and international requirements will prove challenging for many companies and their counsel in the near term.