



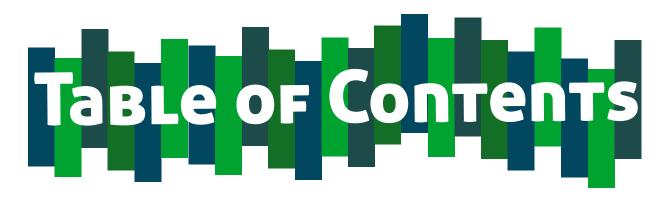
PRODUCT POLICY & Compliance Seminars

June 6 in Austin, TX June 10 in Santa Clara, CA June 12 in Schaumburg, IL









- 4 Conflict Minerals: The Evolving Legal and Policy Landscape
- 6 Industry Tools For Conflict Minerals Compliance
- 7 Recommending Size and Weight Metrics to be Considered when Identifying Equipment as "Large-scale"
- 8 Five Components of a Successful Compliance Program
- 9 California Looks to Novel Approach for Chemical Management
- 10 Revision of Restricted Substances under the RoHS2 Directive
- 12 International Controls on the Transboundary Movement of Used Electronic Equipment and E-waste
- 14 End of Life; e-Waste Exports
- 15 Intricacies within the National Implementations in the EU Member States
- 16 Latin American Electronic Product Take-Back Implementation in 2013
- 17 German RoHS2: The ElektroStoffV Enters into Force
- 19 Speaker Biographies
- 25 Contributors

4

Conflict Minerals: The Evolving Legal and Policy Landscape

Rick Goss, Senior Vice President, Environment and Sustainability, Information Technology Industry Council

Conflict Minerals Lawsuit

The legal challenge filed against the SEC's conflict minerals rule by the National Association of Manufacturers, the Business Roundtable, and the U.S. Chamber of Commerce has been withdrawn from the U.S. Court of Appeals for the District of Columbia. This decision was not made on the merits, but rather on jurisdictional grounds. In a related case, the U.S. Court of Appeals (D.C. Circuit) ruled that it lacked original jurisdiction to hear a challenge to another



SEC rule, and concluded that the challenge must first be heard by the U.S. District Court. As a result, this change likely will delay the conclusion of the challenge by at least several months, especially given that any decision made by the District Court likely will be appealed.

Congressional Hearing

On May 21, the U.S. House Financial Services Subcommittee on Monetary Policy and Trade held a hearing entitled "The Unintended Consequences of Dodd-Frank's Conflict Minerals Provision." ITI testified at the hearing and emphasized the concrete achievements of the tech and electronics sectors in addressing conflict minerals; stressed the challenges with satisfying the federal requirements; and, underscored the need for the international community to undertake clear, coordinated action to address the underlying causes of conflict in Central Africa. This is the second hearing that the subcommittee has hosted to consider the impacts and outcomes of the conflict minerals provision of Dodd-Frank.

European Union Initiative

Even as U.S. publicly traded companies work to meet the federal conflict-minerals requirements, a pending initiative in Europe may alter the regulatory landscape. Since early 2012, ITI has engaged in an ongoing dialogue with senior European Commission (EC) officials to share our sector's insights and to drive for coordinated solutions and complementary actions. Last December, the EC hosted a closed workshop to help define the scope and objectives of potential European action conflict sourcing. ITI was one of a handful of outside experts invited to share insights regarding the direction the European Union might want to pursue. The dialogue helped the EC to formulate its "Public consultation on a possible EU initiative on responsible sourcing of minerals originating from conflict-affected and high-risk areas." launched this March.

On May 3, ITI and several of our member companies met with EC officials in Paris in the margins of the OECD sessions on conflict minerals. During that meeting, we supported the EU's stated premise that a comprehensive approach to conflict minerals and resource extraction would need to rely on a combination of diplomacy, trade policy, financial strategies, and development assistance. We also urged the EU to adopt a cautious and consistent approach when contemplating the question of the private sector's role. Finally, we stressed that EU action should complement existing initiatives, and we underscored the compelling need for increased government support of clean in-region sourcing mechanisms and regional peace and development efforts.

Canadian Legislation

In March, a Member of Parliament (MP) in Canada introduced legislation to require Canadian companies to exercise due diligence with respect to conflict minerals sourced from the Great Lakes Region of Africa. MP Paul Dewar, who sponsored the bill, is a member of the New Democratic Party (NDP). The NDP is currently in the opposition in Canada, where the Conservative Party holds the majority.

In brief, the proposal closely mirrors the U.S. requirements contained in section 1502 of Dodd-Frank. The regulated community is defined to mean corporations in Canada, while the covered minerals and the geographic scope are largely the same as those included under U.S. law. ITI has been in an ongoing dialogue on conflict minerals with the Embassy of Canada in Washington, D.C., and we have offered our technical assistance should the Canadian Parliament take up the issue.



6

Industry Tools For Conflict Minerals Compliance

Fern Abrams, Director of Government Relations and Environmental Policy, IPC

On August 22, 2012, the U.S. Securities and Exchange Commission (SEC) adopted a final conflict minerals regulation. The final rule provides some improvement over the proposed rule by establishing a unified reporting schedule, creating an indeterminate category,



implementing a phase-in period and removing the requirement that a Conflict Minerals Report is required for any recycled or scrap materials contained in a product. IPC has been a strong advocate for these provisions and is pleased they are included in the final rules.

On March 26, 2013, the European Union (EU) launched a public consultation regarding the development of conflict minerals regulations. The consultation is open until June 26, 2013. These regulations would be in addition to those affecting companies doing business in the U.S. If the EU develops different conflict minerals rules and regulations, the burden on companies doing business in the EU could be significantly increased. Some reports state that European Trade Commissioner Karel De Gucht may be considering regulations that would require a customs-based conflict minerals declaration for everything brought into the EU.

An IPC summary of the final rule is available at www.ipc.org/conflict-minerals-summary. For more information, visit www.ipc.org/conflict-minerals.

Industry Tools

Earlier this year, IPC published a guide to assist industry in understanding conflict minerals requirements and to highlight available tools and resources. The guide is available at www.ipc.org/conflict-minerals-guide.

IPC is developing two standards to assist members in conflict minerals compliance: the IPC-1755, Conflict Minerals Data Exchange Standard, and the IPC-1081 Conflict Minerals Due Diligence Guideline. The conflict minerals data exchange standard will establish an XML schema for the seamless exchange of conflict minerals compliance data throughout the supply chain, regardless of the database or web-based software platform. The data exchange standard development is based upon IPC's 175x standards and the EICC/GeSI conflict minerals template. The data exchange standard is expected to be published in fall 2013. IPC-1081 will expand on the OECD guidelines. The OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas and the Supplement on Tin Tantalum and Tungsten are cited by the SEC rule as an example of an acceptable due diligence framework.

Recommending Size and Weight Metrics to be Considered when Identifying Equipment as "Largescale" for EU RoHS2

Sanjay Baliga, Senior Manager Environment, Health and Safety Division, SEMI

This paper recommends criteria to suppliers of semiconductor and photovoltaic manufacturing equipment for determining whether their equipment meets the "large-scale" qualification for Large-scale Stationary Industrial Tools per the European RoHS Directive and the related Frequently Asked Questions (FAQ) document provided by the European Commission.



Note: The SEMI RoHS Working Group (and other organizations) uses the acronyms LSIT and LFI for "Large-scale Stationary Industrial Tools" and "Large-scale Fixed Installations", respectively. The FAQ treats the hyphen differently and uses LSSIT and LSFI as acronyms. The former set is used in this paper.



Background

The European Union RoHS Directive 2011/65/EU, known as RoHS2 became effective January 3, 2013. It is a revision (a recast) of the original EU RoHS Directive 2002/95/EC. A significant change in RoHS2 is the introduction of definitions for two types of equipment that are excluded from the scope of RoHS2: LSIT, and LFI. Several parameters are given for identifying these equipment types, including that they be 'large-scale.' However, RoHS2 does not provide any guidance as to how 'large-scale' should be understood.

In December 2012, the European Commission released a Frequently Asked Questions document (a FAQ) related to RoHS2. The FAQ makes several important points regarding the meaning of 'large-scale' as applied to LSIT and LFI, all of which are expressed in question 3.1 of the FAQ, namely, "What are 'large-scale stationary industrial tools' and 'large-scale fixed installations'?" The points are summarized in the following sub-sections which present the key observation followed by supporting text from the FAQ:

- **1. Difference In Meaning –** The term 'large-scale', though a criterion common to determining if equipment is LSIT or LFI, has a different meaning in each case. The characteristics indicating a stationary industrial tool is large-scale will not necessarily be the same as those indicating a fixed installation is large-scale.
- "...it is important to consider that the meaning of 'large-scale' in absolute terms may be a different one for tools and installations, as there are differences between tools and installations." $[Q3.1 \ \P2]$
- "...'large-scale' does not necessarily have the same meaning for tools and installations." [Q3.1 $\P15$]
- **2. Relative Magnitude** Even though the meaning of 'large-scale' is different when applied to stationary industrial tools versus fixed installations, it seems clear that a large-scale fixed installation will be larger than a large-scale stationary industrial tool.

The remainder of this document is available on the SEMI website at: http://www.semi.org/en/node/45221.

Five Components of a Successful Compliance Program

Keith Biggs, CEO, Total Parts Plus

Establishing an Environmental Compliance Program in an existing business operation can be both challenging and rewarding for an Original Equipment Manufacturer (OEM). To reap the rewards, an OEM must understand that throughout the process it will encounter roadblocks that will test the flexibility of internal processes and its ability to allow for compromise. The following are five key elements to building a strong compliance program.



1. Initiate in Stages

Approaching the compliance program in stages can significantly ease the pains of implementation. Starting with a "Clean" Master Parts List can contain the costs of managing large amounts of material content data. After streamlining the Master Parts List, suppliers must be trained and educated on the compliance requirements and documentation.

2. Continuity is Key

The program must seamlessly integrate with the internal processes of the OEM for design, procurement, manufacturing, and sustainment while supporting the program goal of reporting accurately to the restrictions laid out in the RoHS, REACH, and Conflict Minerals regulations.

3. Quality Assurance

Quality and accuracy of material disclosures' content are vital in providing rolled up data from the homogenous material level. The information contained in the declarations must be normalized to a standard mass and weight format that can be rolled into a final total. Percentages must be normalized and evaluated so that the final total percentages are correct. CAS numbers must be verified to match the material descriptions. Exemptions claimed must be confirmed to the intended use declared by the supplier. In accordance with RoHS2, exemptions have begun to expire so it is important to verify that the supplier is not claiming compliance with an exemption that is no longer valid. For these reasons, 100 percent of the supplier documents should be quality checked prior to loading into material databases.

4. Leadership

Ownership at the Senior Management level of the organization is a critical factor for program success. If Senior Management is involved from the beginning and establishes a definable program goal that assigned personnel understand and embrace, success will be more attainable. Supplier performance and participation also will improve if suppliers know the program is championed at the Senior Management level.

5. Flexible Reporting Management

At the core of the successful program must be an environmental compliance reporting tool which easily integrates data content into the OEM's existing ERP/MRP systems and also provides the flexibility to report on full material disclosure, partial JIG content data, substance YES/NO, and any variation of disclosure information received from suppliers.

A strong compliance program will offer many rewards for the OEM, including the capability to report on all current and future environmental compliance regulations, a cleaned and updated Master Parts List, and an enhanced Product Change Notice (PCN) process for their products.

California Looks to Novel Approach for Chemical Management

Chris Cleet, Director, Environment and Sustainability, ITI

The California Green Chemistry Initiative (GCI) was initially based on the "12 Principles of Green Chemistry" in the book, **Green Chemistry: Theory and Practice** by Paul Anastas and John Warner. The book focuses on topics such as waste reduction and using inherently less hazardous chemicals. With this in mind, the California legislature passed Assembly Bill 1871 in 2008, which established the GCI. This law required the California Department of Toxic



Substance Control (DTSC) "by January 1, 2011, to adopt regulations to establish a process by which chemicals or chemical ingredients in products may be identified and prioritized for consideration as being chemicals of concern."

AB 1879 gave the DTSC very broad authority to address chemical use in "consumer products" as defined in California Law and required the Department to develop a process where manufacturers would perform an "alternatives analysis" (AA) based on several factors. California Health and Safety Code defines "Consumer product" as a product or part of the product that is used, bought, or leased for use by a person for any purposes. "Person" means an individual, trust, firm, joint stock company, business concern, partnership, limited liability company, association, and corporation, including, but not limited to, a government corporation.

From the law, the DTSC drafted the Safer Consumer Product (SCP) regulations. These regulations create a four-step regulatory process where the Department: 1) identifies candidate chemicals; 2) identifies products containing a chemical of concern and prioritizes those products for assessment; 3) requires manufacturers of a priority product to conduct an AA on the chemical of concern; and, 4) imposes a potential regulatory response on the product. The regulatory responses range from providing additional information to consumers prior to purchase, to mandating a take-back program, to banning the sale of a product containing a specific chemical. ITI has been involved during the drafting of these regulations, meeting with key regulators and administrators both during the Schwarzenegger and Brown administrations, and ensuring that an ITI member representative was appointed to the GCI Green Ribbon Science Panel.

The SCP regulations have gone through many drafts with associated public comment periods. The most recent, and likely final, public comment period ended on April 25, 2013. The DTSC has announced that they plan to publish the final regulation on October 1, 2013, and will list the first set of chemical-product combinations in the spring of 2014. Due to ITI's discussions with DTSC Director Debbie Raphael, ITI was one of the first associations to break the news of the release of the April Draft Proposed Regulation.



10

Revision of Restricted Substances under the RoHS2 Directive

Fern Abrams, Director of Government Relations and Environmental Policy, IPC

As a result of IPC and other industry lobbying efforts, the RoHS2 Directive published in the European Union (EU) Official Journal on June 8, 2011, did not include any additional substance restrictions in Annex II. However, RoHS2 called for the EU Commission to review additional substances for restriction. The Commission is required to complete its review of Annex II by July 2014.



In January 2013, the Commission launched a stakeholder consultation on the review of Annex II and stated that it supports developing a scientific methodology to identify and assess substances for inclusion in Annex II. In parallel with the development of the methodology, nominations will be accepted from stakeholders on what substances to consider. The Commission also stated that it supports alignment with the REACH Regulation.

On May 7, 2013, as part of the stakeholder consultation, the Austrian Environmental Agency, consultants to the EU Commission, released their second draft of the Methodology for Identification and Assessment of Substances for Inclusion in the List of Restricted Substances (Annex II) under the RoHS2 Directive (draft manual). Our initial review of the draft manual raised significant concerns regarding how substances will be evaluated for restriction under the RoHS2 Directive.

The draft manual proposes to evaluate substances for restriction in three steps. First, a database of substances used in electrical and electronic equipment (EEE) that may be harmful during waste electrical and electronic equipment (WEEE) management will be developed. The information collected for a substance will be used during the subsequent prioritization process. In the second step, substances will be classified as moderate, medium, or high priority for further assessment and possible restriction under the RoHS2 Directive. The prioritization will be based on the information gathered on hazard properties, negative impacts during WEEE management, and production volume. Substances are then classified. In the third step, the high-priority substances will be assessed for restriction under the RoHS2 Directive based on impacts to human health and the environment and impacts on waste management operations. Once all the high-priority substances are assessed, the medium-level priority substances will then be evaluated for restriction, and so on.

IPC is concerned that the draft manual does not require full evaluation of alternative substances. Banning a substance without fully evaluating the alternatives can result in unintended negative impacts if the alternatives are not better for human health and the environment than the banned substances. Substances should not be restricted unless alternatives that are better for human health and the environment are identified. When assessing substances for restriction under the RoHS2 Directive, the process for evaluating viable alternatives must include hazard and exposure in order to ensure alternatives are less harmful to human health and the environment than the original substance. IPC will encourage the EU to follow the growing number of jurisdictions and nongovernmental organizations that are pursuing methodologies for the evaluation of a substance's alternatives.

IPC is also concerned by the draft manual's focus on evaluating the substance's environmental and human health impacts during end-of life. Evaluation of a substance for restriction under the RoHS2 Directive should be a more comprehensive, life-cycle evaluation. The draft manual specifically mentions TBBPA and other halogenated flame retardants as a concern because of the formation of dioxin during uncontrolled burning of halogenated flame retardant-containing WEEE. The risks associated with uncontrolled burning should not be managed by regulating substances contained in a product. Uncontrolled burning causes a variety of health and environmental risks and should be restricted.

Finally, IPC is concerned that establishing a comprehensive database of substances used in EEE that may be harmful during WEEE management would create a de-facto black list of substances, which could lead to negative impacts on human health and the environment. If a database is pursued, IPC believes the sources for substances to be included in the database should be from authoritative bodies, not from nongovernmental organizations' lists or stakeholder consultations.



International Controls on the Transboundary Movement of Used Electronic Equipment and E-waste

Paul Hagen, Principal, Beveridge & Diamond, P.C.

The movement of used electrical and electronic equipment across international borders for reuse or recycling is increasingly subject to national legislation governing the import and export of "hazardous wastes." In response to & DIAMONI the continued mismanagement of e-waste in West Africa and Asia, many countries are taking a more expansive view



of when used electronic products should be considered "hazardous wastes" for purposes of national and international legal controls on waste shipments. To a large degree, national legislation and policies are being informed by the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal.

The Basel Convention. The Basel Convention is a global treaty governing the transboundary movement of "hazardous" and "other" wastes. To date, more than 177 countries have become parties to the Convention. Among other things, the Convention:

- Provides a framework for hazardous waste classifications;
- Establishes a global prior written notice and consent system governing waste shipped for final disposal or for materials recovery/recycling;
- Bans trade in covered wastes with non-parties (e.g., U.S.), in the absence of an appropriate "Article 11" Agreement; and,
- Obligates parties to ensure waste shipments only proceed where wastes can be managed in an "environmentally sound manner."

The parties have also adopted an amendment to the Convention that, when in force, will ban the movement of hazardous wastes from developed countries (listed in Annex VII as including members of the OECD, EU, and Lichtenstein) to developing countries. not yet in force as a matter of international law, the so called "Basel Ban Amendment" has been implemented by the EU and has prompted many developing counties to enact national bans on the import of materials classified as "hazardous wastes."

As a general matter, many parties are moving to classify various types of e-waste as hazardous waste. The parties are also considering whether to classify all used equipment intended for repair and refurbishment as "waste" subject to the Convention (with narrow exceptions). These international deliberations are important as they are already driving the development of national waste legislation and policies in countries worldwide.

Focus on E-waste as a Priority Waste Stream. In recent years, parties to the Convention have taken steps to address the challenge of managing e-waste. These actions include the adoption of new waste lists under the Convention that seek to better define the universe of e-waste deemed presumptively hazardous and covered by the Convention, and those types of e-waste that are not typically viewed as hazardous (Annexes VIII and IX).

Technical Guidelines on E-waste (including waste/non-waste). The parties are negotiating new Technical Guidelines on Transboundary Movements of E-waste and Used Electrical and Electronic Equipment, in Particular Regarding the Distinction between Waste and nonWaste under the Basel Convention ("Technical Guidelines"). The Guidelines would apply to all electrical and electronic equipment and focus specifically on when parties are to classify used equipment destined for reuse, including reuse after refurbishment or repair, as a "waste" under the Convention.

A decision by the parties to classify used equipment destined for repair and refurbishment as "wastes" subject to the controls and trade bans of the Convention would raise new legal, logistical and cost barriers to a wide range of industry activities related to:

- Warranty returns;
- Management of leased equipment;
- Non-warranty repairs;
- Company refurbishment operations for parts and equipment; and,
- Product recalls.

At the COP-11 meeting held in early May in Geneva, the parties were unable to reach consensus on the waste/non-waste issue with regard to electrical and electronic equipment and agreed to continue negotiations on the draft Technical Guidelines over the next 18 months with the aim of adopting a final document at COP-12. ITI has taken a leadership role in representing industry interests in the negotiations. ITI has worked to advance a compromise approach that would expand the Convention's controls over illegal movements of hazardous e-waste while allowing legitimate manufacturer repair and refurbishment operations to continue. ITI has emphasized the significant environmental and economic benefits associated with equipment reuse.

The draft Technical Guideline remains the subject of negotiation and has proven to be contentious, as many countries in the Africa and Latin America regions have pressed for an approach that would classify all used electrical and electronic equipment as "wastes" under the Convention, unless the equipment is tested and documented to be "fully functional" prior to export. Other countries, including Japan, Canada, Malaysia, Singapore, the U.S., and, to a lesser extent, EU members, have favored a more flexible approach that would allow certain legitimate shipments of used equipment for repair and refurbishment to proceed outside of the Convention's controls, provided certain documentation, packaging, and other assurances are met.

These and other initiatives will become increasingly important to address as companies take steps to comply with new product take-back laws or expand voluntary take-back and product reuse programs.



14

End-of-Life: E-Waste Exports

Paul Hagen, Principal, Beveridge & Diamond, P.C.

The federal government has successfully brought the first two criminal cases against e-waste recyclers who illegally exported cathode ray tubes (CRTs) to the Middle East and Asia. These cases demonstrate the federal government's increased determination to use existing laws to pursue criminal enforcement of the illegal handling and disposal



of e-waste. Cynthia Giles, EPA's Assistant Administrator for the Office of Enforcement and Compliance Assurance, has stated that these criminal sentences should serve as a warning to all those who illegally export e-waste from the United States.

In December 2012, a federal jury convicted Executive Recycling (ER), its CEO, and Vice President of Operations on multiple criminal counts, including seven counts of wire fraud, the illegal export of hazardous waste to developing countries, smuggling, and obstruction of justice. ER was the exporter of record in more than 300 exports from the U.S. between 2005 and 2008, including the export of over 100,000 CRTs. The defendants were found to have falsely advertised that they would dispose of e-waste in an environmentally friendly manner, in the U.S. Instead, the company was found to have sold e-waste to brokers for export to China and other countries. The individual defendants will face a maximum sentence for each wire fraud count of up to 20 years imprisonment and a \$250,000 fine, while the company will face up to a \$500,000 fine per count or twice the gross gain or loss. The other criminal counts also carry serious penalties. For more information, see http://www.bdlaw.com/news-1431.html.

In March 2013, the Federal District Court sentenced Discount Computers, Inc. (DCI) and its owner for trafficking in counterfeit goods and services and for violating environmental laws related to the fraudulent export of CRTs. DCI operated as a broker of used electronic components, including computers and televisions. The company re-sold working electronic parts and disassembled broken ones for scrap. DCI also exported significant amounts of used CRTs to countries in the Middle East and Asia.

Worker exposure concerns prompted Egypt to prohibit the importation of computer equipment more than five years old. DCI evaded this requirement by replacing original factory labels on used CRTs with counterfeit labels bearing more recent manufacture dates. Over a five-year period, DCI sent at least \$2.1 million in shipments to Egypt, or about 300 shipments containing more than 10,000 used CRT monitors. Prosecutors charged DCI with violating federal laws prohibiting the knowing use of a counterfeit mark on or in connection with goods and services for the purpose of deceit or confusion. DCI was also charged with violating the Resource Conservation and Recovery Act's prohibition on the storage or disposal of hazardous waste (including the types of monitors at issue) without appropriate permits. In 2012, DCI's owner pleaded guilty to these charges on behalf of himself and his company. The court sentenced him to 30 months in prison and a \$10,000 fine, and sentenced DCI to a \$2 million fine and \$10,839 in restitution. For more information, see http://www.bdlaw.com/news-1458.html

These actions follow several civil enforcement actions brought by EPA related to the illegal export of used CRTs from the U.S. Similar enforcement actions targeting the illegal transboundary movement of e-waste have been brought in Canada, the U.K., and Nigeria in recent months.

Intricacies Within the National Implementations in the EU Member States

Eva Hink, 1WEEE Services

The RoHS directive 2011/65/EU for "restriction of hazardous substances in electrical and electronic equipment" is a CE-directive based on the "new approach" for a single market in the European Union.



An EU directive, however, does not address citizens and companies directly. Binding law for the economic operators are only the national implementations in the 27 EU member states, i.e. the 27 varieties of the directive.

Despite the "Single Market Concept," there are often substantial differences between the national implementations of the 27 EU member states.

On the one hand, any member state has to define specific issues, like language for the declaration of conformity (DoC) or sanctions. On the other hand, the national implementations show a variety of dissenting interpretations of basic issues such as, transition periods.

As stated in the directive, devices that are new in the scope of RoHS, e.g., based on the new and stronger definition of an EEE, benefit from a grace period until July 22, 2019. The implementations of some member states, however, do not show the transition period for these devices at all.

The language requirements differ amongst the member states. Some accept the DoC in several languages, e.g., German and English; some only accept the official language of the member state, e.g., Hungarian.

The following table shows the different requirements at current legislative situation: Requirements and deadlines for a product that is new in the scope of RoHS due to the new definition of EEE, e.g., a gasoline-driven mower with an electronic starter.

Member State	Date substance restrictions apply	Date noncompliance products are no longer permitted on market	Language requirements for DoC
Germany	NA	July 22, 2019	German or English
Austria	Device not in scope; definition not changed in national legislation	NA	NA; for products in scope: German or English
Slovenia	January 3, 2013	No deadline	Slovenian
Czech Republic	January 3, 2013	No deadline	Czech

Implementation of the RoHS directive is still ongoing – 10 countries have not published their local legislation yet. It is strongly recommended to survey the developments and contents of the national legislation in order to have compliant products on the market.



Latin American Electronic Product Take-Back Implementation in 2013

Maddie Kadas, Principal, and Russell Fraker, Associate, Beveridge & Diamond P.C.

Framework laws mandating producer take-back for endof-life electronics have been in place in most of Latin America for several years. Most of these laws have not yet been implemented. 2013 ushers in new stages of implementation in the region's two largest economies,



Brazil and Mexico, as well as Peru. Industry will be required to submit proposals detailing plans for collection and management for a wide range of electronic products.

Brazil: Proposals are due June 13, 2013, in response to MMA Edital No. 1/2013 (the "Edital"), which provides an extensive set of criteria that "reverse logistics" plans must address. The Edital invites submissions from the trade associations that represent the companies that manufacture, import, distribute or retail electrical products "of domestic use." Among the Edital criteria are quantitative requirements for both the geographical scope of a collection network and the effectiveness of the system in collecting products. If accepted by the government, a proposal submitted in response to the Edital would be formalized as a "sectoral agreement" through which the signatories commit to meet their reverse logistics obligations. Otherwise, the government can impose requirements by regulation.

Mexico: Mexico was the first country in the region to enact producer take-back obligations through its 2003 General Waste Law. The "Official Mexican Standard" NOM-161, issued in February, establishes the list of "special management wastes" that require management plans, including eight types of electronic products. By August 1, 2013, companies that manufacture, import, distribute or retail the listed products are required to submit management plans that conform to the outline provided in NOM-161. Mexico's General Waste Law places special management wastes under state, not federal jurisdiction, and plans must be registered with state agencies.

Peru: Supreme Decree 001-2012-MINAM requires manufacturers, assemblers, importers, distributors, and merchants of electrical and electronic products to submit management plans by June 27, 2013. These plans may be either individual or collective and must include quantitative collection targets, although the process for setting targets is currently undefined. Peru is in the process of issuing a set of technical standards for e-waste management; however, the effect of these standards remains ambiguous.

Other Countries: Producer take-back initiatives for electronics are developing elsewhere in the region as well. Implementing regulations for existing e-waste laws are anticipated in Costa Rica and Puerto Rico. Ecuador has issued a regulation requiring management plans for mobile devices by June 28, 2013. In Chile, a national waste law and an e-waste regulation, both requiring producer take-back, have been proposed. Finally, in Argentina, an e-waste bill modeled on the EU WEEE Directive has received significant support in the past and will likely return to the legislative agenda in the near future.

German RoHS2: The ElektroStoffV enters into force

Ken Rivlin, Partner, Allen and Overy

On May 9, 2013, the German Ordinance on Hazardous Substances in Electrical and Electronic Equipment (Elektround Elektronikgeräte-Stoff-Verordnung, ElektroStoffV) entered into force. More than four months delayed, the

ALLEN & OVERY

ordinance implements Directive 2011/65/EU (RoHS recast) into German law. The changes affect the entire electronics industry and supply chain from manufacturer to distributor to disposal companies. The core changes are:

- Scope: ElektroStoffV will extend the scope of substance restrictions as of July 23, 2019, to electrical and electronic equipment (EEE) that was not covered by the German Act on Electrical and Electronic Equipment (Elektro- und Elektronikgerätegesetz, ElektroG). As a consequence, for example, cables which did not fall within a product category of ElektroG and vehicles exempted from type approval will be subject to the substance restrictions.
- **Previous exemptions:** Medical devices and monitoring and control instruments have been exempted from the substance restrictions. These exemptions will expire within the next four years in several steps (2014, 2016, 2017).
- Conformity assessment and CE marking: Manufacturers of EEE must demonstrate compliance of their EEE with the substance restrictions in an internal production control procedure, draw up an EU declaration of conformity and affix the CE marking.
- Additional marking requirements: Manufacturers and importers are obliged to affix additional markings, such as a marking ensuring their identification.
- **Verification requirement:** Distributors and importers must check EEE before putting it on the market. They have in particular to verify whether it complies with the CE marking requirement and other marking requirements.
- Withdrawal/recall: Manufacturers, importers and distributors are, in a worst case, obliged to withdraw or recall EEE that is already on the market and does not comply with the restrictions or whose conformity has not been duly demonstrated.
- Identification requirement: Manufacturers, importers and distributors are, upon request, required to identify any economic operator who has supplied them with an EEE and any economic operator to whom they have supplied an EEE. The operators must keep related documentation for 10 years.
- **Register requirement:** The manufacturers and importers must keep a register of non-compliant EEE as well as EEE recalls and withdrawals. They have to regularly inform distributors on listed EEE.

Our leading German environmental practice is part of our Global Environmental Law Group, which includes more than 60 specialist, commercially focused environmental law experts in Asia Pacific, Europe and the Americas, advising on all aspects of climate change matters and environmental law and liability. As one of the first globally integrated environmental law practices, we provide both transactional and stand-alone advice in all the major areas of environmental and health and safety law at national, regional, and international levels.



Speaker Biographies

Steve Andrews, Head of Environmental Regulation Unit, U.K. BIS

Steve Andrews has worked in a number of different posts in the UK Government's Department for Business, Innovation & Skills (BIS) covering both policy development and project responsibilities.

Steve currently is the head of the Environmental Regulation Unit within the Green Economy Team at BIS. Steve's Unit has responsibility for UK Government policy on the Restriction of Hazardous Substances (RoHS) Directive, the Waste Electrical & Electronic Equipment (WEEE) Directive, the Batteries & Accumulators Directive, the Packaging & Packaging Waste Directive, and the End of Life Vehicles (ELV) Directive. The Unit also leads BIS interest in all strategic waste policy, ecodesign & product policy, and critical raw materials issues.

Steve represents the UK on the European Commission's Technical Adaptation Committee for the RoHS and WEEE Directives and was part of the negotiating team for the recasts of both Directives since discussions began in March 2009 through to their conclusion.

Matthew Bignell, Enforcement Officer, U.K. NMO

Matthew Bignell is an Enforcement Officer for the United Kingdom National Measurement Office (NMO) Enforcement Directorate. His main roles are to investigate, evidence, and sanction breaches of EU legislation under the NMO's jurisdiction and to plan, research, perform, and manage effective market surveillance projects. In these roles he works closely with industry, government and other stakeholders across Europe to ensure there is successful enforcement of RoHS, the Energy Labelling Framework, Eco-Design, and Batteries Directives.

Matthew's background is nine years in the British Army as a Technical Communications Specialist enforcing and implementing both administrative and procedural rules and policies.

Chris Cleet, Director, Environment and Sustainability, ITI

Chris provides expertise on technical environmental issues such as materials restrictions and best practices for electronics recycling. He leads the Environment Leadership Council's (ELC's) materials restrictions committee and is active in ensuring state and federal laws are based on sound science.

Prior to joining ITI, Chris was the Senior Manager of Environmental Affairs for the Environmental Issues Council of the Electronic Industries Alliance (EIA), where he handled environmental issues for the high-tech industry.

Before coming to EIA, Chris worked with major consulting firms handling environmental issues for the Department of Defense, Department of Energy and major manufacturing companies. He also worked as the director of several of the American Chemistry Council's self-funded advocacy teams, working on issues such as worker safety, product recycling, toxicity and outreach plans, and has taught high school chemistry, physical science and earth science in schools in Montgomery County, MD, and Lancaster, PA. Chris has authored or co-authored several environmental technical papers and holds a bachelor's degree in Chemistry from Millersville University in Millersville, PA, and a master's degree in Environmental Science from Johns Hopkins University.

19

Chris is a certified Qualified Environmental Professional (QEP) through the Institute of Professional Environmental Practice (IPEP).

Holly A. Evans, President, Strategic Counsel, LLC

Holly A. Evans is an environmental attorney with more than fifteen years' experience representing global electronics firms on environmental, health and safety and sustainability matters.

As the President of Strategic Counsel, LLC, Holly has represented and counseled Fortune 500 companies, small and medium component suppliers, high-tech trade associations, and electronic retailers and distributors on international, federal, and state environmental issues. Throughout her career, Holly has orchestrated the development and implementation of industry positions on key legislative, regulatory, voluntary, and market-based initiatives impacting the global electronics industry, including electronics recycling, materials restrictions, energy efficiency, and green procurement requirements. She has led the development of leading industry standards and compliance databases, including the Consumer Education Initiative, EIATrack, and Joint Industry Guide Material Declaration Standards for electronic products (JIG 101) and packaging (JIG 201).

Holly has been a key contributor to the development of industry environmental roadmaps, including the 2003, 2005, 2008, and 2012 iNEMI Environmental Roadmaps and has participated as an industry stakeholder in the development of leading ecolabels for electronic products, including the Electronic Product Environmental Assessment Tool (EPEAT) IEEE 1680.1 personal computer, IEEE 1680.2 imaging equipment and IEEE 1680.3 television standard and the UL Environment mobile phone standard (UL 110).

Richard ("Tad") Ferris, Partner, Holland & Knight

Richard ("Tad") Ferris is a partner at Holland & Knight and a principal with the firm's China Team. Mr. Ferris co-leads the firm's work in the China regulatory and government relations areas. He is based in Washington, D.C., and regularly works out of the firm's Beijing office.

Mr. Ferris helps multinational corporations, associations and other entities develop and implement successful investment strategies that minimize product and other regulatory and government relations risks in the China market. Mr. Ferris has more than 15 years of experience in working with Chinese government agencies, multinational corporations and multilateral institutions.

Mr. Ferris is best known in corporate and Chinese government circles for his leadership and work in the product, environmental, health and safety areas. Mr. Ferris's work also involves assisting clients with addressing similar issues in other Asian jurisdictions, through management of local counsel and applying his extensive experience in working with foreign attorneys and dynamic regulatory programs to client projects.

Mr. Ferris' China practice focuses on product border restrictions and registration, environmental compliance planning and due diligence, hazardous substance restriction ("RoHS"), product registration, air pollution control, waste electronic and electrical product ("WEEE") recycling, hygiene regulation, pre-market certification and associated testing requirements, chemical registration, product design standardization, regulated materials transportation, end-of-life product and materials disposition, worker health and safety, employment/labor management, emergency planning and associated advocacy directed at government agencies and affiliates.

Russell Fraker, Associate, Beveridge & Diamond, P.C.

Russell Fraker is an Associate in the Washington, D.C. office of Beveridge & Diamond, P.C. His practice encompasses environmental regulatory issues associated with facilities and products, both domestically and internationally. He has significant experience with air, waste, contaminated site, biosafety, and product stewardship laws.

Proficient in Portuguese and Spanish, Mr. Fraker has worked in several Central and South American countries. As a member of the Firm's Latin American practice group, he advises clients on regulatory issues in the region, with a particular focus on Brazilian environmental laws.

Before entering the practice of law, Mr. Fraker worked as an environmental consultant to the oil, forestry, and telecommunications industries. He also worked as a commercial fisheries observer on the Bering Sea and North Atlantic, and in the planning, permitting, protection and repair of undersea cable systems in over twenty countries.

Mr. Fraker's work in the non-profit sector includes past management positions in two conservation organizations, ongoing representation of the National Association for Environmental Management, and his current volunteer position on the National Forest Leadership Council.



Rick Goss, Senior Vice President, Environment and Sustainability, ITI

As Senior Vice President for Environment and Sustainability, Rick directs the development and implementation of policy and advocacy strategies related to ICT product design, green procurement and stewardship; "Smart" and renewable energy; and supply chain priorities including conflict minerals. He works with federal and international officials, the global ICT sector and civil society to promote science-based, consensus global requirements for high tech products and to advance the central role of ICT in driving energy efficiency and sustainability throughout the global economy.

Rick has testified on behalf of tech manufacturers before Congress and in numerous states, and regularly represents the sector in international venues and on policy panels and dialogues. Rick has appeared on CNN, CBC (Canada), BBC Radio and CBS Radio, and has been quoted in The Wall Street Journal, The New York Times, The Washington Post, Newsweek, and the Financial Times, among others.

Prior to joining ITI, Rick worked for three years at the Electronic Industries Alliance (EIA), where he served as EIA's Vice President of Environmental Affairs. In this role, Rick managed the development of policies and advocacy approaches on electronics recycling, product materials content and green procurement at the federal and state levels, and led high tech sector engagement on the Basel Convention.

Paul Hagen, Principal, Beveridge and Diamond, P.C.

Paul Hagen practices in the areas of U.S. and international environmental law. He counsels leading multinational corporations and trade associations on environmental compliance and market access requirements related to product design, supply chain management, and resource protection measures in the U.S. and in key markets worldwide. He also advises clients on the negotiation and implementation of regional and global environmental agreements, with a particular emphasis on treaties and related legislation impacting the chemicals, electronics, and pharmaceuticals sectors.

Mr. Hagen advises a diverse group of clients on market access and product stewardship initiatives. His work includes advising on chemical import notification requirements, restricted substances legislation (e.g., RoHS), supply chain due diligence for sourcing of timber and conflict minerals, labeling and energy efficiency standards, dangerous goods shipments, and consumer product safety requirements. He works extensively with companies on product take-back and recycling mandates in the U.S., Europe, Asia-Pacific and Latin America including requirements governing the transboundary movement of used and end-of-life products.

Mr. Hagen has represented clients on matters arising under numerous international environmental agreements, including: the Basel Convention and OECD decisions governing transboundary movement of hazardous wastes and recyclables; the Stockholm Convention on Persistent Organic Pollutants (POPs); SAICM; the Biosafety Protocol to the Convention on Biological Diversity; the Framework Convention on Climate Change and the Kyoto Protocol; the CITES Convention; the Montreal Protocol; and various marine conservation accords.

Lauren Hopkins, Associate, Beveridge & Diamond, P.C.

Lauren Hopkins is an Associate in the Washington, D.C. office of Beveridge & Diamond, P.C. with a general environmental, litigation, and regulatory practice. Lauren's practice focuses primarily on global product stewardship, supply chain due diligence, and environmental advertising and marketing.

In particular, Lauren advises on a number of product-related environmental requirements including material restrictions in the U.S. and Europe, worldwide product safety regulations, and product take-back and recycling. Lauren also advises on voluntary or procurement-related requirements such as eco-design and environmental certifications.

Lauren has significant experience advising on federal, state and international regulation of environmental marketing and advertising claims. She regularly reviews marketing and advertising materials for the Firm's clients in a variety of sectors, with particular emphasis on environmental claims relating to electronic products such as energy efficiency, design for recycling, reduced use of substances of concern, and product packaging and logistics. She also advises the Firm's clients on development of internal procedures and guidance documents for environmental claims, and provides client training on compliance with U.S. and worldwide environmental marketing restrictions.

Madeleine Boyer Kadas, Principal, Beveridge & Diamond P.C.

Maddie Kadas is a Principal in the Firm's Texas Office and divides her practice between international and domestic environmental law. She began as an Associate in the Washington, D.C. Office in 1999 and was named the first Managing Principal of the Texas Office in 2005.

Fluent in Spanish, Maddie assists clients from a range of industrial sectors on all manner of environmental, health, safety and product compliance and regulatory issues in Latin America. She is the founder and current Chair of the Latin American Practice, now one of the most robust Latin American environmental law practices in the country. She currently serves in an "in-house" capacity managing the Latin American environmental legal portfolio of a Fortune-50 Company, a role she assumed shortly after joining the Firm. She provides regulatory tracking and reporting services for major trade associations on pending Latin American initiatives. Most recently, she has represented clients in an industry-observer capacity in regional meetings in connection with international Multilateral Environmental Agreements (MEAs).

Licensed in Texas since 1994, Maddie maintains a substantial environmental domestic practice. She represents clients on a variety of regulatory and enforcement matters under U.S. and Texas environmental laws with a focus on air and waste issues affecting the chemical manufacturing and petrochemical refining sectors. She has managed numerous facility compliance assessments and advised clients on using the Texas Audit Act and EPA Audit Policy. She regularly works on air permitting issues and recently helped several clients successfully navigate the NSR permit "de-flexing" process. She has also helped clients respond to EPA and citizen objections to Title V permits, prepared strategic objections to numerous information requests under RCRA and the CAA, and negotiated successful settlement outcomes to enforcement actions.

Michael Krug, Director of the Board, 1WEEE Services

Michael Krug is Director of the Board at 1WEEE Services Corp., of Dallas, Texas, a compliance services provider for international waste and product related legislation with a focus on compliance topics of the electronics industry. As managing director of K&L and 1WEEE Services in Germany, Krug has profound experience with compliance questions of a large number of electronics companies confronted with a wide variety of legislation in the European Union, numerous other countries of EMEA, as well as Asian countries and the Americas.

Prior to managing his own companies, Krug, by education a philologist, and journalist, spent 12 years with the EMEA organization of Hewlett-Packard in Geneva/Switzerland and Germany, responsible for communications and investor relations.

Kenneth Rivlin, Partner, Allen & Overy

Ken is head of Allen & Overy's Global Environmental Law Group, U.S. Environmental and Regulatory Law Group and U.S. Pro Bono Program. He and his team advise on environmental and regulatory risk in M&A, projects, capital markets, lending and real estate transactions, compliance with U.S. and EU environmental and regulatory requirements (such as the WEEE and RoHS Directives and REACH), conflict minerals, emissions trading and climate change, environmental disputes, toxic tort risk, SEC disclosure requirements and corporate governance issues. Ken and his team also advise on the U.S. Foreign Corrupt Practices Act, U.S. and international economic sanctions, Exon-Florio and similar matters.

Ken has served on numerous bar committees, is a member of the Committee of the Cyrus R. Vance Center for International Justice, a member of the Editorial Board of "Environmental Liability", a Lecturer-in-Law at Columbia University School of Law and an Adjunct Professor at the Benjamin N. Cardozo School of Law. He writes and speaks frequently on environmental and regulatory matters. He is also a Trustee at Montclair Kimberley Academy, and a board member for the Blacksmith Institute and the Human Needs Food Pantry of Montclair, NJ.

Chris Smith, Technical and Operational Manager, U.K. NMO

Chris Smith is the Technical Manager and Operational Manager for the United Kingdom National Measurement Office (NMO) Enforcement Directorate. His role centers around technical aspects of the legislation, EU cooperation, knowledge transfer and technical enforcement delivery. In this role he has been working closely with industry, government and other bodies across Europe to ensure there is an effective regime of RoHS, energy labeling, Eco-design, batteries composition, unlawfully felled timber and tyres enforcement, and improved consistency in interpretation of the directives scope.



His present role is supported by 23 years experience delivering technical assessments to the EEE sector in support of regulatory functions and a total of 29 years operating in technology environments. He also has practical field experience as an environmental protection inspector and in conformity assessment delivery.

Graham Zorn, Associate, Beveridge & Diamond, P.C.

Graham C. Zorn is an Associate in the Washington, D.C. office of Beveridge & Diamond, P.C., with a general litigation, regulatory, and environmental practice. Graham has represented individual businesses, trade associations, and municipalities in compliance, enforcement, and counseling matters involving the Clean Air Act, the Clean Water Act, CERCLA and other state and federal statutes. He has worked extensively on a series of complex products liability and toxic tort cases related to alleged groundwater contamination involving a gasoline additive. Graham has also counseled domestic and international clients on a variety of product compliance, market access, and enforcement matters. Specifically, Graham is well versed in reporting requirements related to the use of conflict minerals in various electronics, medical devices, and consumer products.

Contributors

ITI

The Information Technology Industry Council (ITI) is the premier advocacy and policy organization for the world's leading innovation companies. We have earned the trust of the world's most recognized technology brands to solve their most complex policy challenges.

ITI is home to the top innovators and best-run companies around the globe. Our members pioneer cutting-edge products and services that improve people's daily lives. Forbes ranks our members among the most innovative companies on the planet, and ten of our companies are among the world's 50 largest corporations.

Our expertise ranges from market access to sustainability, from core standards to the cloud. Our influence spans the world's national capitals and key commercial markets. We develop first-rate advocacy strategies and market-specific approaches. And we deliver results.

Learn more at www.itic.org.

IPC

IPC is a global industry association that represents more than 3,000 electronics manufacturers and assemblers of high-tech products and industrial electronics for defense, transportation, aerospace and telecommunications equipment.

IPC is a leading source for industry standards, training, market research and public policy advocacy, while supporting programs to meet the needs of an estimated \$2.7 trillion global electronics industry.

IPC's core members are companies that manufacture printed boards and assemblies, original equipment manufacturers (OEMs), suppliers, government officials and academia.

SEMI

SEMI is the global industry association serving the semiconductor manufacturing supply chains for the microelectronic, photovoltaic (solar), display, solid state lighting, and other high tech manufacturing industries. SEMI has more than 2,000 member companies and maintains offices in Bangalore, Beijing, Berlin, Brussels, Grenoble, Hsinchu, Moscow, San Jose, Seoul, Shanghai, Singapore, Tokyo, and Washington, D.C. More information about SEMI is located on the internet at http://www.semi.org.

1WEEE Services GmbH

1WEEE-Services GmbH and its mother company K&L offer legal and strategic consulting and compliance services for the fulfilment of legal obligations resulting from waste and product legislation in Europe, North America and beyond with particular focus on:

- Electrical and electronic equipment (WEEE waste electrical and electronic equipment)
- Batteries
- Packaging
- RoHS
- REACH



Total Parts Plus (TPP)

TPP was established in 1998 with a contract to maintain component risk and obsolescence on the F-15 aircraft. Since that time TPP has become a top provider of data management tools and services for both obsolescence and environmental compliance. TPP's customers represent over 400 OEM's in 17 different countries and a wide range of industries.

Beveridge & Diamond, P.C.

Beveridge & Diamond's 100 lawyers in 7 offices across the U.S. focus on environmental and natural resource law, litigation, and alternative dispute resolution. The Firm helps clients around the world – including from the information technology and electronics industries – resolve critical environmental issues relating to their facilities, products, and operations. Learn more at www.bdlaw.com.



Allen & Overy

Since opening our first office in London in 1930, Allen & Overy has grown into elite international law firm, with 42 offices in 29 countries. We (approximately 512 partners and 5,000 staff) aim to provide the very best seamless cross-jurisdictional advice, while also providing the highest level of local advice in all of the jurisdictions in which we operate. Our overriding goal is to be a trusted advisor and partner to our clients, working alongside them and providing them with the support and guidance they need wherever their business takes them.

Sponsors











