

# WEEE and RoHS Directives: New Requirements Impacting the Global Supply Chain of the High-Tech Industry

by

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On January 23, 2003, the European Union (EU) adopted two significant environmental laws that are already having a far-reaching impact on the U.S. high-technology industry. These laws are the Directive on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (**RoHS Directive**) and the Directive on the Waste Electrical and Electronic Equipment Directive (**WEEE Directive**).

The WEEE and RoHS Directives apply to electrical and electronic equipment (EEE) sold in Europe and falling into specific categories listed in the Directives. EEE essentially means any product that requires electricity to function properly. By July 1, 2006, the RoHS Directive will prohibit the use of six substances, including lead, in EEE subject to certain exceptions. Under the domestic laws of the countries members of the EU (**Member States**), companies that sell non-compliant EEE may be subject to civil and criminal fines and penalties. In addition, non-compliant products may be impounded. The WEEE Directive obliges producers of EEE to set up recycling systems or otherwise make arrangements to collect the waste of their EEE (**WEEE**).

As most readers of this journal know, these two EU laws are having a significant financial and technological impact on the U.S. high-tech industry. As discussed below, there are a number of open issues concerning how the WEEE and RoHS Directives will be implemented, and how they will affect U.S. manufacturers. Nonetheless, the implementation of these laws is well underway, and U.S. manufacturers must take the necessary steps to ensure their compliance.

## The WEEE Directive

To develop a successful compliance strategy, manufacturers should understand the content of the Directives, including what products are covered or exempt. The WEEE Directive (Annex IA) provides that the following ten categories of EEE are subject to the recycling program:

1. Large Household Appliances (*e.g.*, refrigerators and washing machines)
2. Small Household Appliances (*e.g.*, vacuum cleaners and toasters)
3. IT and Telecommunication Equipment (*e.g.*, computers, printers and telephones)
4. Consumer Equipment (*e.g.*, radio and television sets and musical instruments)
5. Lighting Equipment
6. Electrical and Electronic Tools (*e.g.*, drills, saws, sewing machines) (except for large-scale stationary industrial tools)
7. Toys, Leisure and Sports Equipment (*e.g.*, video games)
8. Medical Instruments (*e.g.*, cardiology equipment, dialysis machines)
9. Monitoring and Control Instruments (*e.g.*, smoke detectors and thermostats)
10. Automatic Dispensers (*e.g.*, soft drink machines)

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The WEEE Directive explicitly excludes four types of EEE: (i) EEE intended specifically for military purposes; (ii) large-scale stationary industrial tools; (iii) implanted and injected medical devices; and (iv) EEE that is part of another type of equipment not subject to the WEEE Directive (*e.g.*, car radios). Given the limited application of these exclusions and the broad scope of the included products, the vast majority of products sold by U.S. high-technology companies will be subject to the WEEE Directive.

The WEEE Directive imposes obligations and responsibilities on “producers” without regard to the producer’s location, nationality, the place of manufacturing of EEE or the means by which EEE is sold (through a retailer, mail order or the internet). Generally, a company that sells EEE in the EU under its own brand is a producer under the WEEE Directive. The Directive obliges producers to (i) register with each Member State; (ii) meet information requirements; (iii) provide financial guarantees; and (iv) finance the collection, treatment, recovery and disposal of WEEE. On the definition of producer, however, the WEEE Directive is ambiguous and subject to some conflicting interpretations. These issues may also play out differently in different EU countries as the WEEE Directive is implemented.

### **The RoHS Directive**

The RoHS Directive restricts the use of several substances in EEE. It requires that EEE “put on the market” does not contain lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB) and polybrominated diphenyl ethers (PBDE), as of July 1, 2006. (As discussed below, certain concentrations of these substances are likely to be permitted in EEE in minimal amounts.) The RoHS Directive, however, does not apply to all of the EEE covered by the WEEE Directive. RoHS is limited to EEE falling under categories 1-7 and 10 of the WEEE Directive’s covered categories, as listed above. The categories excluded from the RoHS Directive are medical instruments (category 8) and monitoring and control instruments (category 9). Additionally, the Directive excludes numerous applications of the restricted substances from coverage. Exempt applications include lead in high-melting temperature type solders and lead in solders for some network infrastructure equipment. Additional exemptions to applications of RoHS substances have been adopted for future implementation. These are discussed further below.

### **An Uncertain Path to Full Implementation**

Though Member States are moving ahead with implementation of these new laws, many important questions about the Directives’ application remain unresolved. There are several important developing issues manufacturers should take notice of and consider in their business and regulatory compliance plans.

### **Additional Exempted Applications of RoHS Restricted Substances**

This past December, Member State representatives, through the EU Commission (**Commission**) Technical Adaptation Committee (**TAC**), agreed to amend the RoHS Directive to add new exemptions on the basis of an independent technical study. According to non-official sources, new exempted applications include: lead used in compliant pin connector systems; lead as a coating material for a thermal conduction module c-ring; lead in solders with more than two elements for the connection between the pins and the package of microprocessors with a lead content of more than 80% and less than 85%; and lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

The EU Commission is expected to adopt a decision amending the RoHS Directive to add these exemptions in the coming months. In addition, the EU Commission has just launched a new stakeholder

consultation process in connection with twenty-two other proposed application exemptions. Comments on these new exemptions must be submitted no later than February 11, 2005.

### **Maximum Concentration of Restricted Substances**

Although the RoHS Directive sets forth a complete ban on the use of the six restricted substances, as any EEE manufacturer can attest, it is nearly impossible to guarantee that a product is completely free of a substance. To address this issue, the Directive provides that the TAC will adopt maximum concentration values (MCV) for the restricted substances. The TAC has proposed MCVs of 0.1% by weight of “homogenous materials” for all restricted substances, except for cadmium, which would have a .01% limit. The TAC proposal is contained in a draft decision that must be issued by the EU Council to become binding on all Member States. As of the end of 2004, the EU Council had not issued such decision although it is widely anticipated that the MCVs will be adopted as currently proposed.

### **Definition of “Put on the Market”**

Another crucial issue under the RoHS Directive is the meaning of the phrase “put on the market.” “Put on the market” is a specific legal concept that has been used under EU law in the context of other directives and which has been interpreted by some Member State courts. Companies that intend to sell non-compliant EEE shortly before or after July 1, 2006 should be sure to consult with qualified counsel. The goal, needless to say, is to ensure that proposed transactions and sales channels will result in non-compliant product to be deemed to be put on the market prior to July 1.

### **Additional Uncertainties**

Most Member States have missed the August 13, 2004 deadline for implementing the WEEE and RoHS Directives. Although most are expected to correct this situation in the coming months, there is a possibility that one or more Member States will fail to adopt WEEE and RoHS implementing legislation before, respectively, August 2005 and July 2006. Even those Member States that meet the RoHS implementation deadline may adopt differing techniques for measuring compliance, elect to selectively enforce certain requirements, or prioritize their use of resources for certain product categories.

Industry should also be aware that the EU Commission can recommend amendments to the WEEE and RoHS Directives at any time. Such amendments could, among other things, expand the product coverage of the Directives, or create new exemptions.

### **Risks, Penalties and Compliance**

Although the WEEE and RoHS Directives do not prescribe any specific penalties, they require each Member State to adopt penalties applicable to violations of domestic laws implementing the Directives. In the past, some Member States have strictly enforced substance bans and limitations. For example, as most of the readers of this publication know, Sony Playstation Ones were impounded in the Netherlands in 2001 when Dutch authorities discovered that the devices' power cord insulation contained noncompliant levels of cadmium.

If the non-compliant material is located in one product accessory, the producer is typically able to correct the violation by substituting a replacement accessory. If the non-compliant material is found in several components or parts within a product, however, the producer may not be in a position to readily cure the violation. In some cases, the violation may also require shipping the products back to the U.S. or Asia for dismantling and replacement. This could delay sales, result in the loss of customers and lead to the breach of supply contracts. Given the substantial potential risks of failing to comply with the WEEE and

RoHS Directives, as well as the significant time and resources that must be devoted to developing an effective compliance strategy, producers who have not yet developed a compliance plan should begin doing so immediately.

Despite the continuing uncertainties in the development and delays in the implementation of these laws, WEEE and RoHS are here to stay, and important dates in their implementation are coming up. Manufacturers should be aware of the WEEE and RoHS calendar and should be planning accordingly. The important dates in the WEEE and RoHS implementation calendar are as follows:

<b>August 13, 2005</b>	(1) WEEE collection systems must be in place (2) producers must start financing WEEE collection system and (3) all products must be properly labelled
<b>From July 1, 2006</b>	Producers cannot put EEE on the EU market that contains lead, mercury, hexavalent chromium, cadmium, polybrominated biphenyls (PBBs) or polybrominated diphenyl ethers (PBDE)
<b>By December 31, 2006</b>	EU countries must ensure that at least 4 kg of WEEE is collected per household, per year
<b>From August 13, 2011</b>	Producers may no longer place a visible fee on the sale of new EEE to show the costs of the collection, treatment, recycling, reuse and environmentally-sound disposal of Historical WEEE

### **EEE Substance Bans and Recycling Requirements in China**

China's Ministry of Information Industry (MII) has issued a draft regulation on regulating substances in EEE entitled "Management Methods for the Prevention and Control of Pollutants from Production of Electronic Information Products." The MII draft regulation would impose a substance ban similar to the ban contained in the RoHS Directive. Although it could change in the future, the China RoHS currently contemplates a compliance deadline of July 1, 2006. The draft regulation could also include significant product take-back provision. The MII draft regulation would apply to a list of products contained in a "Product Catalog." The AeA is discussing with the MII to ensure that the draft regulation remains practicable and consistent with the RoHS Directive to avoid creating multiple high-tech standards.

### **WEEE and RoHS Regulations Require Action Today**

The WEEE and RoHS Directives impose extensive and costly requirements for producers of EEE that will fundamentally alter every high-tech company's business strategy in the EU. In addition, because so many companies that do business in the EU also serve other important markets in the world, these new requirements will necessarily impact global supply chain management decisions and planning. In this regard, companies should also focus on the development of substance bans affecting EEE in China. Companies that do not comply with the WEEE and RoHS Directives, and the similar rules being developed in China and other jurisdictions, are likely to be subject to penalties and may be prevented from selling their products in the EU and in China. It is therefore essential that U.S. companies understand these new requirements and develop a comprehensive compliance strategy that will enable them to remain competitive.

Please do not hesitate to contact Allen & Overy LLP if you have any questions about the WEEE and RoHS Directives, or other EU environmental compliance issues.

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