
New EU Legislation Affects Electronic Waste and the Use of Hazardous Materials in Electric and Electronic Devices

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The EU has recently issued two new directives concerning the recycling of electronic waste (Directive 2002/96/EC), also known as the **W**aste from **E**lectrical and **E**lectronic **E**quipment or "WEEE" Directive) and the use of hazardous material in electronic devices (Directive 2002/95/EC). The directives came into effect on February 13, 2003 and must be implemented into the laws of each EU Member State by August 13, 2004. To date, none of the Member States has enacted legislation to implement either of the directives.

The WEEE Directive

The WEEE Directive addresses the disposal of electronic waste, one of the hottest regulatory issues within the EU. EU Member States are required to take adequate measures to reduce, to the greatest possible extent, the volume of electrical and electronic devices disposed of in municipal waste facilities. In furtherance of this goal, each Member State is obligated to establish a network of collection facilities, to which end customers and distributors may return WEEE conveniently and free of charge. These collection facilities must be operational no later than August 13, 2005. The number and location of the collection facilities must reflect the population density of the Member State.

The WEEE Directive includes separate provisions governing the disposal of equipment containing WEEE that is used for domestic purposes and equipment for business use, but the net result of both seems to be that the manufacturers (or distributors) are responsible for the collection of the equipment. For domestic users, collection is either through the separate collection facilities or through a mandatory "free return" policy, which requires distributors of equipment for personal use to ensure that WEEE can be returned free of charge on a one-to-one basis, as long as the returned equipment is of equivalent type and has served the same purposes as the supplied equipment. For business equipment containing WEEE, the Directive simply states that producers shall "provide for the collection of such waste."

The direct costs of disposal of equipment for personal use are to be borne by the manufacturers (or distributors), either by requiring them to pay most of the costs of the disposal facilities or through enforcing the "free-return" policy. Presumably the costs of this collection will be passed on to consumers as part of the purchase price of new equipment. The costs of disposal of equipment

used for business purposes is also to fall on the manufacturers, although the WEEE Directive specifically permits manufacturers and business users of equipment containing WEEE to "conclude agreements stipulating other financing methods." This may permit a more direct transfer of the costs of disposal of equipment used for business purposes to the user.

The WEEE Directive also obliges the Member States to achieve a collection rate averaging not less than 4 kilograms per inhabitant per year of WEEE from private households for periods after December 31, 2006. This obligation is being imposed as a way of encouraging the Member States to set up effective collection facilities, which will attract the WEEE-laced products and keep them from being disposed of in municipal waste facilities. The goal is both to reduce the overall amount of waste disposed of and specifically to reduce the amount of hazardous electronic waste entering the municipal waste facilities.

Producers may provide for the collection and disposal of equipment containing WEEE either individually or on a collective basis. Presumably the latter method will be more convenient for both the manufacturers and the users of the WEEE. Allocating the costs of collection and disposal in a collective scheme should prove challenging. The preamble to the WEEE Directive specifically provides that all producers and distributors of equipment within or into the EU should bear their respective costs of implementation of the collection disposal schemes, noting that those using "distance and electronic selling channels" (such as e-retailers) should bear their proportionate share. Bringing distance sellers into the disposal scheme could prove particularly challenging.

Producers and distance sellers with operations primarily outside of EU member states must be aware that the WEEE Directive likely imposes obligations that are more stringent than those found in other countries, such as the United States. For example, producers and distance sellers in the United States currently are not required to directly collect, or establish systems to collect, obsolete or discarded electronic waste. While the United States Environmental Protection Agency, in an effort to boost the recycling of electronic waste, recently established a "Plug-In to Recycling Campaign," participation in that campaign remains voluntary. It is unlikely that the Environmental Protection Agency will establish mandatory recycling obligations on the part of electronic producers in the near future. Instead, any mandatory regulation requiring the recycling of electronic waste exists solely at the state level, directed at end-users (and not producers), and primarily consists of bans on the disposal of electronic waste in landfills.

Directive 2002/95/EC

Directive 2002/95/EC restricts the use of lead, mercury, cadmium, hexavalent chromium, poly-brominated biphenyls and polybrominated biphenyl ethers in electrical and electronic devices effective as of July 1, 2006. The restrictions apply to products that are put into circulation in the EU. However, there are several important exceptions regarding specific applications of lead, mercury, cadmium and hexavalent chromium. These exceptions, which are set out in an annex to Directive 2002/95/EC, permit small quantities of mercury in compact fluorescent lamps, lead in solder used in servers, storage and storage array systems (until 2010), lead in solder used in network infrastructure equipment for switching, signaling, transmission and network management for telecommunication, and certain cadmium plating. The EU Commission is authorized to evaluate the

use of certain exempted materials and propose amendments to the exceptions included in Directive 2002/95/EC.

In contrast to the EU, efforts to regulate the use of specified chemicals of concern in the production of electrical and electronic equipment are less developed in the United States. The United States Environmental Protection Agency has launched several initiatives in the last few years to encourage electronic equipment producers to examine the environmental impact associated with their products over the products' life cycles, from materials acquisition to manufacturing, use and disposal. While those initiatives (and the participation of numerous producers in those initiatives) are commendable, they have not imposed mandatory restrictions on the use of any of the chemicals identified in Directive 2002/95/EC. Instead, only a handful of states - most notably California - have established regulations that require notice be provided to consumers prior to the distribution, within the state, of electrical and electronic equipment that contains specified chemicals of concern.

Conclusion

Manufacturers of electrical or electronic devices inside the EU, and persons importing such devices into the EU, should monitor the progress of legislation or governmental activities in the relevant EU Member States in response to these two directives. The German ministry for environmental affairs has announced that it will issue a regulation concerning WEEE. These directives are expected to give a significant boost to the recycling industry in the EU. In Germany alone, 1.1 million tons of WEEE is expected to be disposed of in 2005.

The directives, especially the WEEE Directive, are broadly drafted and leave a great deal of room for variation in local implementation. In particular, the method of financing the costs of disposal of WEEE equipment may vary significantly from country to country, reflecting the different attitudes towards regulation of businesses.