

The Globalization of Product Stewardship

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Product stewardship is critically important these days as international stewardship initiatives and directives involving specific products – typically consumer products – are sprouting up everywhere. In Europe, for example, several directives are likely to greatly influence global product stewardship. Environmental regulation historically has been expressed through command-and-control mechanisms of governance.

These prescriptive measures have focused on blunting any environmental harm potentially caused by manufacturing operations by limiting or preventing environmental releases generated in connection with manufacturing activities. Although it is true that such measures help greatly in preventing environmental degradation, they do not, according to some, prevent contamination at the core.

The premise underlying product-specific initiatives is to blunt environmental degradation by eliminating the inclusion of potentially harmful components in manufactured goods. That way, the manufacture, distribution, use and disposal of the good is unable to inspire the types of harm that might otherwise arise if the manufactured good included the potentially harmful component, no matter how the good is used, and regardless of how it is disposed after its useful life.

Environmental protection today, particularly in the European Union (EU), increasingly focuses on prevention-oriented product regulation, especially on consumer products believed capable of posing environmental degradation upon disposal at the end of the product's useful life.

These directives are intended to minimize waste by prompting product design changes and requiring the reuse and recycle of products at the end of their useful life. In 2000, the EU adopted the precedent-setting End-of-Life Vehicles (ELV) Directive (Directive 2000/53/EC). Under the ELV Directive, EU member states were required to develop and implement collection and recycling systems of all ELV, and establish reuse and recycle goals.

Product design standards required under the directive mandated that vehicles marketed after July 1, 2003, not contain lead, mercury, cadmium or hexavalent chromium, except as specifically authorized under the directive.

More recently, Directive 2002/95/EC, Restrictions of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS Directive), barred manufacturers and importers after June 30, 2006, from marketing in the EU electrical and electronic equipment containing lead, mercury, cadmium, hexavalent chromium and polybrominated biphenyls ethers.

Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE Directive) requires EU member states to establish systems for managing the burgeoning amounts of

electronic waste. Other directives have been enacted, and others are expected to follow in the years to come.

Extensive Involvement

While Europe is setting the pace, other countries are doing likewise. The South Korea Ministry of Environment, for example, announced in July 2006 that it will start restricting the use of certain metals in product packaging. Metals of interest include lead, cadmium, mercury and hexavalent chromium, among others. Japan rolled out a RoHS-like initiative this past July.

A China RoHS-like law was issued in March 2006, but the government announced earlier this year that it would delay the effective date of the law until Jan. 1, 2007. Similar to the RoHS Directive, it places restrictions on six compounds, imposes labeling requirements and will be enforceable in March 2007. The Chinese RoHS will be broader in scope, however, and apply to manufacturers, distributors, importers and retailers.

Other countries implementing RoHS-like initiatives are Japan, Australia, New Zealand and Latin America. In Mexico, regulations are under development that would apply to manufacturers, generators and importers of "technological waste." Certain Canadian provinces are also considering RoHS and WEEE-like initiatives.

RoHS- and WEEE-like directives are inspiring regulatory authorities globally to ensure environmental sustainability through the redesign of manufactured goods. In the past, the focus on recycling has been toward end-of-product-life issues. Increasingly, the focus is turning upstream in the product development and production line.

The directives assume the responsibility of sustainability is a shared one, providing a role for all major players involved, including government and private industry.

Local governments also may be involved, and typically are involved in the return of goods. Accordingly, companies, typically manufacturers and retailers, should expect to see both a proliferation of these initiatives, as well as greater partnering opportunities with local governments and others in the commercial sector.

A critically important component of the RoHS Directive is the development of standard operational practices to limit the use of certain listed hazardous substances. How these practices are crafted, implemented and enforced will not be easy. Companies can expect also to be challenged by seeking to address the uncertainties associated with RoHS, including the directive's scope, exemptions, testing protocols available for use to determine if a product is RoHS compliant, and related legal and financial uncertainties.

Product regulation is influencing domestic product take-back and/or related initiatives in the United States. A thermostat consortium, the Thermostat Recycling Corp. (TRC), was formed in 1998 by Honeywell, General Electric Corp. and White-Rodgers to facilitate the collection and recycling of thermostats. Since 1998, TRC reportedly has recycled hundreds of thousands of thermostats and has recovered approximately 4,000 pounds of mercury.

Implications

The growing body of EU directives and other global initiatives will continue to influence product manufacturing standards. These initiatives can be expected to heighten consumer

insistence upon product take-back and/or end-of-life accountability for a wide range of consumer products.

These initiatives are now impacting, and will continue to impact, the manufacturers of the chemicals that are targeted for restriction, manufacturers of those consumer products that must meet new design standards, and the local municipal and other infrastructures that must accommodate the recycle and reuse requirements of these initiatives.

In addition to federal and international initiatives, state and local government agencies are expected to pick up the pace and impose similar end-of-life requirements in the future to ensure that electronic and similar high-volume consumer products are recycled and/or reused and thus avoid becoming the next generation's waste problem. In light of these developments, manufacturers of a wide range of products are urged to think now about these initiatives, identify strategically how they will affect their operations and plan accordingly.

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