



Substance and style: RESTRICTIONS ON DESIGN MATERIALS CONTINUE

Restrictions continue to mount, but, says IPC's Fern Abrams, it's not just the EU's regulatory arm forcing green measures.

THE CONTINUING PROLIFERATION of substance restrictions will persist as the major issue for the electronics supply chain through the coming year, according to Fern Abrams, director of government relations and environmental policy at global trade association IPC—Association Connecting Electronics Industries (www.ipc.org), who notes the EU's (European Union's) ROHS (restriction-of-hazardous-substances) and REACH (registration, evaluation, and authorization of chemicals) regulations.

Since July 2006, EU ROHS has restricted the amount of lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls, and polybrominated-diphenyl ether in electronics. A growing list of similar regulations in the Asia-Pacific region has followed. These regulations include the Chinese Ministry of Information Industry's "Management Methods for Controlling Pollution by Electronic Information Products" order, or China ROHS. "So far, thankfully, all of the countries that have listed ROHS-type regulation have stuck with the same list of substances that the EU pioneered," Abrams says, noting that domestic bills in the United States in states including Maine and Massachusetts have looked at broader lists.

REACH, meanwhile, which began on June 1, 2007, aims to streamline and improve the former legislative framework for chemicals in the EU. Under REACH, manufacturers and importers must register substances they produce or import in quantities of one ton or more per year per company. These companies may not use any substance that REACH determines to be an SVHC (substance of very high concern) in products unless granted authorization.

"The EU is looking at REACH and considering broadening [the ROHS] list," Abrams says, noting that the EU has charged the Öko-Institut eV with

that task and that the institute has put 46 candidate substances under review for ROHS using the REACH SVHC criteria as part of the selection process. "It's not proposed legislation yet," Abrams says, "... but it's an awfully broad net, and, most alarmingly, the institute seems to have set themselves up as a new power. They went far beyond the directions that the [European Commission] gave them and broadened the scope of what they were supposed to be looking at, which is probably why the list is so long."

Increasing and sometimes unnecessarily strict customer requirements are further driving this continuing proliferation

"My fear is that as you do this, [the substance restriction or removal] could become regulation. When it's voluntary, at least we have control over whether it is a technical feasibility. Once it becomes a regulation, it's much more problematic," cautions Abrams. She holds a master's degree in civil/environmental engineering from Virginia Polytechnic Institute and State University and worked as an environmental consultant on industrial, commercial, government, and military projects for more than 10 years before joining IPC in 2000.

Halogen-free electronics or electronics that do not use BFRs (brominated flame retardants) have recently made headlines, she notes. Regulations do not drive such design changes. "You have a number of large OEMs making in the last year very public commitments that either they will be halogen-free, or, at a minimum, they are going to remove BFRs and PVC [polyvinyl chloride] from their products within the next two years. That's a very, very aggressive time line," Abrams warns.



There are definitely whole areas where halogens play a significant performance role.

of substance restrictions. "In an effort to differentiate themselves, companies are trying to be what I call 'greener than thou,'" Abrams says. "They are making up their own list of 'bad-guy' substances and asking their supply chain to remove them, or, in some cases, the supply chain is removing them and saying, 'we are greener than someone else.'

PC makers including Apple, Dell, and Hewlett-Packard have made such statements. Apple's chief executive officer, Steve Jobs, for example, has pledged to eliminate the use of PVC and BFRs in Apple's products by the end of 2008. In 2007, Greenpeace criticized Apple for using PVC and BFRs

See IPC »39

«18 IPC

in its tremendously popular iPhone handset. However, the BSEF (Bromine Science and Environmental Forum) fired back at Greenpeace, pointing out that the government has approved for use the substances the environmental group seeks to eliminate and that such targeting is irresponsible because BFRs discourage the fire danger electronics can pose if they overheat.

“There are definitely whole areas where halogens play a significant performance role,” Abrams says. “They are not just there for decoration. And removing them leaves [designers] with lower-performing substances in many cases or ones that just perform differently and that [designers] haven’t had adequate time to test, validate, and qualify. It’s terrible public policy to ban substances on a whim like this. ... I get the sense that [such companies] didn’t necessarily talk to their engineering people.”

Abrams concludes that, as an industry, “We have tremendously amazing products that have changed the way people live their lives and have enormous potential to reduce energy use and environmental impact, and yet we seem to be on the defensive right now. All across the globe, I see this proliferation of ROHS, concerns about e-waste, our products really being fingered as bad guys. There’s a giant disconnect for the public between the products they enjoy and this almost-emotional reaction to targeted chemicals, if you will. There’s just complete lack of reason or balance.”

—*Suzanne Deffree*

FOR MORE INFORMATION

- **IPC — Association Connecting Electronics Industries**
www.ipc.org
- **Steve Jobs message on “A Greener Apple”**
www.apple.com/hotnews/agreenerapple/
- **Öko-Institut eV**
www.oeko.de/
- **“Dealing with the devil: Could REACH be better than ROHS?”**
www.edn.com/article/CA6528666
- **“Group turns tables on Greenpeace, questions comments on BFRs in electronics, iPhone”**
www.edn.com/article/CA6509787
- **“Greenpeace pressure on the electronic supply chain: helpful or hurtful?”**
www.edn.com/blog/690000269/post/420024842.html