

Newsletter from February 21th, 2008

1.

Are you ready for ecodesign?

- Now the European Union is getting involved with its ecodesign initiative!
- If companies do not pay attention to the requirements they will not be allowed market their products within the European Union!



您已经为生态设计做好了准备吗?

- 欧盟积极提倡生态设计!
- 如果生产商不重视相关要求, 他们的产品将不能在欧盟市场销售!

Engineers the world over are used to optimizing for size, cost, reliability and power consumption. They are also used to a relatively free-hand in how to make those optimizations and how to weigh different factors, say the brightness and look of a display versus power consumption; or the way power management works to save power in standby mode.

Now the European Union is getting involved with its ecodesign initiative. And like previous initiatives such as those on the handling of electromagnetic interference, the handling of waste equipment (WEEE) and RoHS and REACH in the area of materials, if companies do not pay attention to the requirements they will not be allowed market their products within the European Union.

So questions of design will not only be issues of performance versus cost but may involve additional cost for the sake of reaching mandatory environmentally-oriented benchmarks. This is also likely to extend to a requirement placed upon vendors to "educate" users through documentation put out with products.

For two years the European Union has been investigating and consulting following a July 2005 decision to address almost all energy-using products (EuP) on the market with Ecodesign regulations. So far the initiative covers about 20 product categories including desktop and laptop computers and computer monitors, televisions, set-top boxes, copiers, faxes, printers, scanners, multifunction devices with a phased introduction of regulations over the next two years.

The main drive behind the legislation is a desire within the European Union to bear down on power consumption and green house gas emissions. As the directive says, "The ecodesign of products . . . provides new opportunities for manufacturers, for consumers and for society as a whole."

Source: www.my-esm.com

2.



**Dealing with the devil:
Could REACH be better than ROHS?**

处理难题：REACH指令可能比ROHS指令更完善吗？

- It's not clear what the right metaphor is for choosing between regulation under ROHS or REACH!
- A key difference between REACH and ROHS is that ROHS does not have any specific data requirements for evaluation of substances!

- 目前对选择ROHS或者REACH指令的正确标准尚且不清楚!
- REACH和ROHS指令最关键的区别是ROHS指令对物质评估没有任何特殊的数据要求!

It's not clear what the right metaphor is for choosing between regulation under Restriction on Hazardous Substances (ROHS) or REACH (Registration, Evaluation and Authorization of Chemicals) ... Is advocating REACH over ROHS akin to "Dealing with the Devil?" or is it more like "the enemy of your enemy is your best friend?" Or has IPC, in advocating regulation under REACH over ROHS, failed to heed the old adage, "Better the devil you know than the devil you don't?"

In IPC's January comments to the European Union (EU) Commission on their review of the ROHS regulation, IPC urged the commission not to expand the scope of ROHS by restricting additional substances. IPC also said that if the Commission deemed additional substance bans to be absolutely necessary, a full life-cycle assessment of the substance and its substitutes should be conducted in order to ensure that the substitution does not have unintended adverse environmental and human health impacts.

IPC went on to say that any further substance restrictions beyond ROHS would more appropriately be addressed under the REACH legislation to avoid unnecessary confusion and regulatory overlaps. This might seem to be flirting with disaster, but let's look a little closer.

Yes, REACH is big, complex and likely to be very costly for the industry. The regulations themselves are hundreds of pages long, before you even get to the guidance. But perhaps there is something to be said for complexity. After all, the ROHS regulation was brief and to the point. So brief that it left many wondering what it required and how to implement it. Even the process for conducting a ROHS review merited only five sentences in the ROHS directive. While the ROHS directive calls for a review of the scope, substances and exemptions under ROHS, no detail is provided as to how the review should be carried out, how stakeholder input should be sought, how substances should be selected, etc.

To a large extent, the ROHS regulation is a European black box: Start with the periodic table, throw in some political aspirations, season liberally with environmentalist positions, and maybe, just maybe, add a dash of science. Shake it all up, and see what sort of regulations fall out.

REACH, on the other hand, spells everything out. We may not like the process, but at least there is a process. The REACH legislation entered into force on June 1, 2007 to streamline and improve the former legislative framework for chemicals in the EU. Under REACH, substances produced or imported in quantities of one ton or more per year, per company, must be registered by manufacturers and importers.

As part of the registration dossier, manufacturers and importers must demonstrate that they have identified and managed risks linked to the substances they manufacture and market. Part of this identification and management process includes assessing downstream use of the substances, such as the use of solder flux in the assembly of electronics. Based on dossier information, authorities may also select substances for a broader substance evaluation to further investigate substances of concern. The evaluations will be based on hazard and risk characterizations provided by the manufacturer or importer. A key difference between REACH and ROHS is that ROHS does not have any specific data requirements for evaluation of substances. The development of the existing ROHS substance restrictions did not rely on data at all and certainly did not consider whether there would be exposure of people or the environment to the hazardous substances used in electronics.

Under REACH, any substance determined to be a Substance of Very High Concern (SVHC) may not be put into products unless they are granted authorization. This is similar to the ROHS requirements that restricted substances not be used unless granted an exemption.

Under REACH, SVHCs will include substances which are:

- Carcinogenic, mutagenic or toxic to reproduction (CMR) classified in category 1 or 2,
- Persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) according to the criteria in Annex XIII of the REACH legislation, and/or
- Identified on a case-by-case basis from scientific evidence as causing probable serious effects to humans or the environment of an equivalent level of concern as those above, e.g. endocrine disrupters.

Once a candidate list of substances requiring authorization is developed and prioritized, manufacturers wishing to import, sell or use (in their product) a substance from the candidate list will be required to apply for authorization. Each downstream manufacturing use of a listed chemical must be separately authorized. Authorization applications will need to include a chemical safety report, covering risks related to those properties that caused the substance to be included in the authorization system and an analysis of possible alternative substances or technologies. Under REACH, the suitability of available alternatives will be assessed taking into account all relevant aspects, including whether the alternative results in a reduction of overall risks and is technically and economically feasible.

Authorizations will be granted if the applicant can demonstrate that the risk from the use of the substance is adequately controlled. The “adequate control route” does not apply for substances for which it is not possible to determine thresholds and substances with PBT or vPvB properties. If the risk is not adequately controlled, an authorization may still be granted if it is proven that the socio-economic benefits outweigh the risks and there are no suitable alternative substances or technologies.

As you can see from this 10,000-foot summary, REACH is complicated. There are a lot of steps. The process is far from foolproof and is certainly open to influence, interpretation and opinion. Clearly, REACH is not a model regulation that IPC would like to see replicated. But, from a REACH vs. ROHS process, substances in the REACH process will not be banned without careful consideration of the full societal impact, which is more than can be said of ROHS.

Source: www.edn.com