

Streamliners

Volume 1, Issue 4

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Don't wait until it's too late:

RoHS Compliance is just around the corner

You may be wondering what RoHS compliance (Restrictions of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment) has to do with your product line. May be nothing, but then again, maybe everything.

To determine if your product falls within the scope of the RoHS Directive, ask the following four questions; if you answered yes to all four questions, your product falls within the scope of the RoHS Directive:

1. Do you intend to sell your product into the European Union (EU) after July 1st, 2006?
2. Does your product need electric currents or electromagnetic fields to work?
3. Is your product powered by up to 1000 Vac (or 1500 Vdc)?
4. Does your product fit into one of the following categories?
 - Large household appliances
 - Small household appliances
 - IT and telecommunications equipment
 - Consumer equipment
 - Lighting equipment
 - Electrical and electronic tools
 - Toys, leisure and sports equipment
 - Automatic dispensers



Don't let your products get hung up before entering the marketplace

Source: "Waste Electrical and Electronic Equipment," Europa, European Community, 2005

For a product to fall within the scope of the RoHS Directive means that after July 1st 2006, your product cannot contain more than the permissible levels of lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB) or polybrominated diphenyl ethers (PBDE). Several US states are adopting similar restrictions as well.

How do you determine compliance to this directive? You need to obtain declarations from your suppliers that the materials, components, assemblies, and/or equipment do not contain more than the permitted level of any of the six restricted substances previously noted. Be sure configuration management is involved as you will be required to keep the appropriate records for up to four years after placing your product on the market.

So what does it mean from a supply chain perspective? Many component manufacturers have taken the proactive approach and have designed parts that replace the older ones containing any of the six substances that are covered under the RoHS restrictions.

Taking the time to verify that the component content of a printed circuit board or cable assembly contains only RoHS compliant parts is one step. Another is to aggressively source compliant parts during any new design effort. Doing so at the start of a new design will take a bit more time, but will reap huge benefits later when there is less rework from component changes and potential

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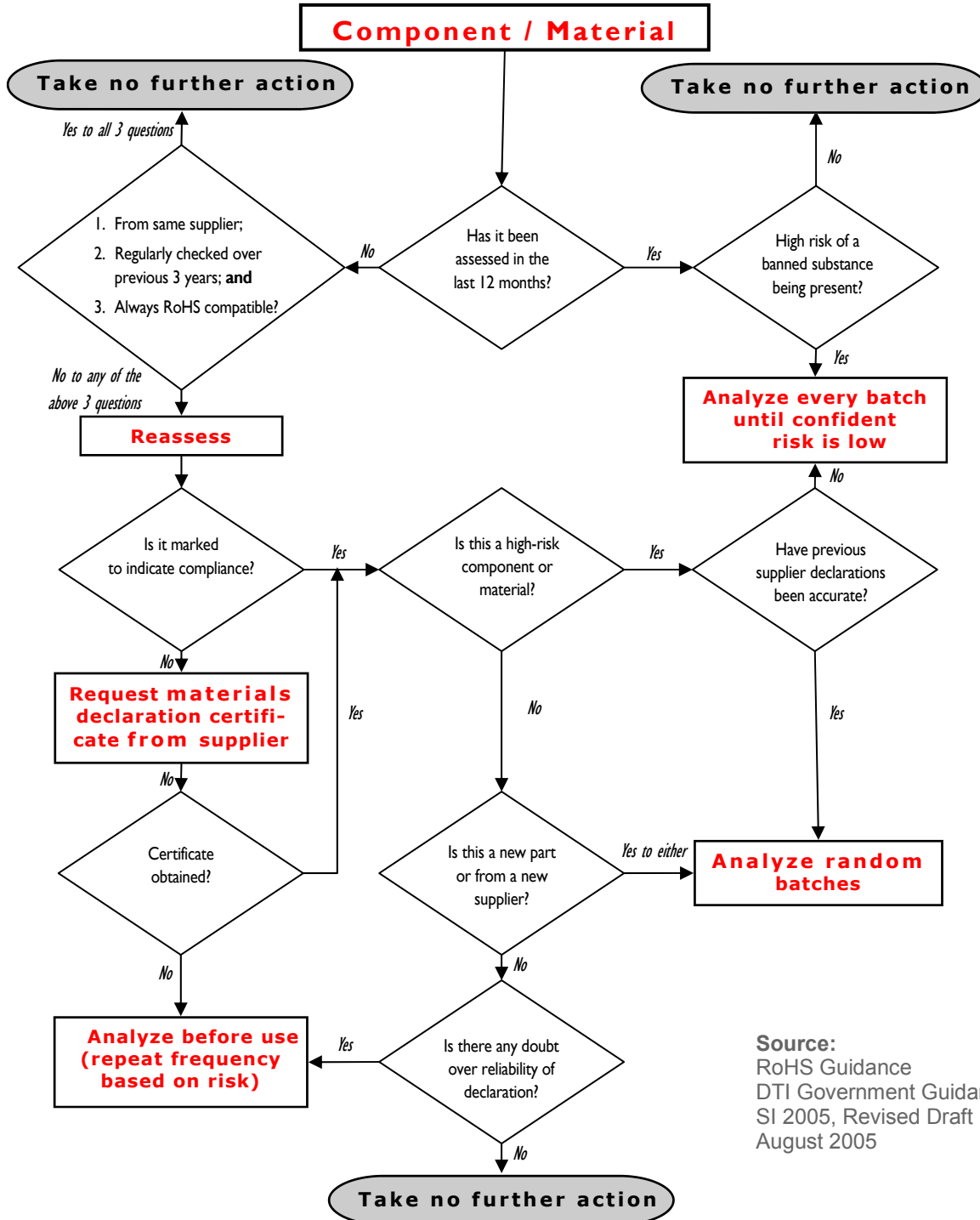
Special points of interest:

- RoHS compliance – what it means to your products
- RoHS impacts beyond circuit boards and electronic components
- Core Source provides customer support to meet RoHS compliance

RoHS compliance is just around the corner (continued from page 1)

redesign. There is often reluctance to have the engineering team perform these steps during product development due to schedule deadlines. By bringing in people who are knowledgeable in setting up the supply chain, component sourcing and cross-referencing, and who understand RoHS regulations and compliant components, you can support engineering teams while meeting product design, build, and delivery schedules with less redesign and rework.

Waiting until the directive is in effect will be too late. Incorporating these guidelines into your development cycle will help you avert an expensive, last-minute redesign that delays your product launch. To help producers get their products to market, RoHS Government Guidance Notes recently provided a flowchart to help clarify the compliance process and to help determine when component analysis is advisable.



Source:
RoHS Guidance
DTI Government Guidance Notes
SI 2005, Revised Draft
August 2005

From the President's Desk

This quarter kicks off an aggressive agenda for Core Source Technologies in all service areas. With new European Union and soon global compliance requirements on the horizon, process and material changes have to be realized to meet the RoHS guidelines. Given the overall impact of this environmentally driven change, and in the short term for the EU, Core Source will be focusing heavily on our RoHS knowledge base and how this impacts the development of a product. In September, Core Source worked with EMA Design Automation to present a seminar identifying the areas of immediate concern for local companies providing

product to the European Union. EMA also provided potential solutions at the tool level to support this initiative. Additionally, Core Source teams, both Mechanical Engineering and PCB Design, have been busy adapting Allegero, ProE and other development software to support new RoHS compliant design. This included updating libraries and material attributes relevant to RoHS. While software was being updated, our Supply Chain Service Team was hard at work supporting this initiative: seeking out and developing relationships with manufacturers who have already identified or redesigned replacement parts to help ensure compliance

with RoHS guidelines.

Core Source is committed to providing our customers with the most current and accurate information supporting this initiative. By using our services, our customers can be assured that RoHS can and will be addressed in all designs. This is not only in the PCB design, fabrication and assembly, but also in areas such as mechanical, regulatory compliance, and supply chain management. As we grow closer to the July, '06 deadline, Core Source will be available to provide guidance and support for your product development requirements.



From the President's Desk

Feeling Green

Developing new products is hard enough. You have to find the right balance between development cost, product cost, features, technology, time to market, and compliance with myriad industry and government standards. Adding to these is the need to comply with the new RoHS initiative and other environmental objectives such as the use of recycled and recyclable materials is enough to make you feel green.

Many mechanical and industrial engineers dismiss RoHS thinking it really only affects the electronic components and subsystems based on the intense focus on lead and its primary use in solder. This is simply not true as many other commonly used materials are targeted such as mercury, hexavalent chromium, cadmium, and other heavy metal based materials. These materials are used in switches, thermometers, as plating, and as flame-retardants in plastics.

They are found in many places other than on circuit boards.

In other cases the flammability ratings of materials is a critical selection criterion. Luckily, as is happening in the electronic component industry, fabricators and materials processors have made much progress investigating and introducing alternative materials and treatments to replace those using the materials being banned.

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20410 Century Blvd.
Suite 130
Germantown, Maryland 20874

Phone: 301.540.9913
Email: aboutcst@coresourcetek.com

We're on the web:
www.coresourcetek.com

Accelerating Product Development

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“Many mechanical and industrial engineers dismiss RoHS thinking it really only affects the electronic components and subsystems... This is simply not true.”

In other words, take advantage of the design cycle to accomplish other goals as well. This allows manufacturers to realize the greatest possible return on their engineering investment.

In any event, don't dismiss RoHS as a “green” initiative impacting only circuit boards and electronic

components. To do so is to leave yourself behind in the markets in which you compete.