



RoHS & WEEE - Impact on distribution

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Perceived Challenges in 2003

- Manufacturers part numbering policy and labelling
 - Would lead to difficulties later on
- Solder
 - Understanding the implications of the higher temperatures
- Availability of compliant parts
- Inventory - two of everything “myth”
 - Real fear factor.....impact totally unknown
 - Little customer understanding of spares for maintenance or selling non-compliant equipment
- Maximum Concentration Values - what would they be?
- Who would enforce the legislation?

and the biggest problem of all.....

-Compliance data from manufacturers.....”it’s lead free!!”

Reality in 2006

- What constitutes due diligence?
 - C-of-C or material declaration
 - Supplier risk assessment
 - Selected analysis
 - No testing standards
 - Learning curve for companies providing test services
- Is my equipment in, or out of, scope?
- Definitions
 - Put on the market etc
- Exemptions
- Inventory
 - Bill-of-materials cross referrals / alternatives
- Awareness - UK research
 - 12% engineers “ready” and 37% “nearly ready” but 28% just started
 - 46% use distributors first, 22% manufacturers, only 9% Government

RoHS Directive

- **Restriction of the use of certain Hazardous Substances** in electrical and electronic equipment “put on the market” on, or after, 1st July ‘06
 - Single market directive
 - Lead, cadmium, mercury, hexavalent chromium, polybrominated biphenyl and polybrominated diphenyl ethers can not be used at levels above the maximum concentration values
 - Scope - equipment in Annex 1A of the WEEE Directive and designed for use with a voltage rating not exceeding 1000V ac or 1500V dc.
- **Benefits:**
 - Protect human health and the environment by reducing air pollution and water toxicity
 - Complimented by the WEEE Directive diverting EEE away from landfill

What is covered

- 8 of the 10 categories of the WEEE Directive
 - Large household appliances
 - Small household appliances
 - IT and Telecommunications equipment
 - Consumer equipment
 - Lighting equipment (including light bulbs & luminaires in households)
 - Electrical and electronic tools
 - Toys, leisure and sports equipment
 - Automatic dispensers

Categories 8 and 9

- Medical Devices and Monitoring & Control Instruments
- Review undertaken by ERA Technology
- Project started August '05, final report by July '06
 - Intention to include within scope
 - EC to submit proposal to EP and Ministers in 2007
 - Political deliberations = 1 to 2 years
 - Transpose into national regulations = 1 year
 - Inclusion unlikely before 2010 - 2012
- More information available from Dr. Paul Goodman
 - ++44 1372 367000
- Categories 8 and 9 remain within the WEEE Directive
 - Recycled at end-of-life

What is not covered

- Medical devices and monitoring & control equipment
 - Categories 8 and 9 of WEEE Directive
- Components and sub assemblies
 - Need to be compliant in RoHS compliant equipment
- Maintenance and repair
 - Spare parts for repair or reuse of EEE on the market before 1st July
- EEE that is part of another type of equipment not covered by RoHS
 - Examples: car radio (ELV), equipment on a train, lift etc
- Batteries
 - However, battery chargers do fall within RoHS - by application
- Military
 - Where the equipment's only use is military / national security

Exemptions to the RoHS Directive

- **6** batches of exemptions in total
- **20** exemptions already adopted
- Current Status - source: DTI website
 - **22** in batch 3 and **23** in batch 4
 - **15** in batch 5 and **23** in batch 6
 - Still time to apply for further exemptions
 - All exemptions will be reviewed again after 4 years (2010)
- Exemption only granted where no suitable alternative substance or design
 - Commercial factors such as cost cannot be taken into account
 - Few alternatives give identical performance
 - Often increased energy costs
 - Exemption removed when suitable replacement found

Who is responsible?

- The Producer of the equipment must ensure that it does not contain the restricted substances at levels higher than the maximum concentration values
- The Producer is any person who:
 - Manufactures and sells EEE under his own brand
 - Resells under his own brand equipment produced by other suppliers
 - Imports or exports EEE into an EU member state
- Only one Producer. Where Equipment refurbished - original producer remains responsible
- Producer can be the brand owner rather than the original importer
 - Example: kettle imported with retailers logo on

“Put on the market”

- “Available for sale and transferred from the site of manufacturer”
 - Products imported by a distributor are put on the market when in the warehouse and available for “sale”
- Products made in the EU, it will be the date when they are transferred to a warehouse at a different address, to the agent, distributor or retailer
- Not so clear for small manufacturers who store within their own factory - these are NOT put on the market
 - The guidelines state that a “transfer” (to another location) must take place
 - Physical hand-over or transfer of ownership has taken place
 - Transfer can be for payment or free of charge
 - Sale, loan, hire, leasing and gift are deemed “a transfer”

Some Confusion over POTM

- Some confusion at the minute over POTM
- Some states saying product not POTM unless first POTM in that country (a national approach as opposed to “single market”)
 - Belgium*
 - Czech Republic
 - France
 - Ireland*
 - Latvia*
 - Lithuania
 - Poland
 - Portugal*
 - Slovakia*
 - Spain*
- * Challenged by EC, others have incorrect interpretations
 - Likely to change but any court action could take several years

Maximum Concentration Values

- 0.1% by weight in “homogeneous materials” for lead, mercury, hexavalent chromium, polybrominated biphenyls and polybrominated diphenyl ethers
- 0.01% by weight for cadmium
- Homogeneous material means a unit that cannot be mechanically disjointed (cutting, grinding, crushing etc) in single materials - such as plastic, ceramics, glass, metals etc
- Customers slowly becoming more aware
 - Not the weight of the component or equipment or PCB

Further Information

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Thank You

ANY QUESTIONS?