

Newsletter No. 1 March 2005



Editorial

Welcome to the inaugural NZTE/Electronics South RoHS and WEEE news letter. The purpose of this newsletter is bring to you – the industry - the latest developments with the legislation, some feature articles and overviews and links to the best of the articles circulating in the last month in the international newsgroups. Since our launch last month we have built up a database of 62 contacts over 40 companies however this would not nearly cover all the companies affected by the RoHS and WEEE legislations in New Zealand. Legislation is a dry subject – not one that gets you anywhere socially at parties – believe me I have been there. I will try and keep these newsletters as light and as readable as possible hopefully without getting myself into trouble.

I have taken a liberty and used email addresses from business cards that I have collected over the years as the distribution list for this newsletter. If anyone does not want to continue receiving this please email rsommer@sommerconsulting.co.nz with “RoHS and WEEE unsubscribe” in the subject heading. Similarly if you know of anyone who would like to subscribe please send me an email with “RoHS and WEEE subscribe” in the heading.

Most enquiries I have been getting to date have been what I call first base enquiries – namely does the RoHS directive affect my business – and if so which products. To work out the answer there are 2 questions to be answered. 1) Is the product within scope, 2) is there an exemption that applies. In most cases the answer is pretty clear cut however there are some major grey areas regarding scope. Given that there is less than 18 months to the

due date – 1 July 2006 this is not a good situation. The EU Technical Adaptation Committee whose job it is to define these things has been indicating since mid last year that it will publish guidance on the grey areas. Unfortunately it has not published anything to date and if anything made a major backward step in December when it ruled (through its legal advisors) that the scope of WEEE did not necessarily apply to RoHS. This cast doubt on a number of aspects of the UK Department of Trade and Industry guidance released July 2004. We are following developments closely but in the meantime there is still a number of grey areas where it is not clear if compliance is needed or not. Given that the cost to comply is generally very high most companies want to be 100% sure that they need to before embarking on any major expenditure.

I will keep you updated through this news letter
Roland Sommer

R&W

Wave Soldering and PTH

There is a good 5 years experience worldwide with lead-free SMT soldering but the area of PTH wave soldering is relatively untested. We have some local instances of PTH components guaranteed as RoHS compliant but not meeting the processing temperature requirements for wave solder machines. The RoHS Directive only stipulates what compounds are banned it makes no requirements regarding processing temperature. Components typically have a process temperature rating of 240 – 250 deg C. Most component manufacturers to gain compliance have removed the lead (Pb) from the lead (as in the bit that sticks out the end of the component) finish. A number of manufacturers have not addressed the issue of the higher processing temperature and we have had reports of some connectors softening and partially melting. This is mainly where the connector sticks out the bottom side of the board on clip-ins with the net result that connector ends up floating slightly off the board. Whilst electrically sound the mechanical

Newsletter No. 1 March 2005

strength will now be relying more on the solder joint and there could be alignment issues with metal work. Other issues have arisen where a metal fastening is transmitting heat from the underside of the board and melting the housing on the topside. Just things to look out for.

R&W

Material declarations, component databases and all that stuff.

Another question that has been asked many times is how do I underpin my compliance – do I have to sign anything? The answer is no, there is nothing to sign, the act of placing the item of equipment on the market in the EU is construed to be the declaration. However the RoHS directive does require that you keep evidence of your compliance in a technical file and that you exercise “due diligence” in compiling this file. The only other pointer the directive gives us is that you need “reasonable grounds” to believe any declaration given to you. No one will know the full interpretation of these terms until someone is taken to court and a precedent set. Similarly in terms of penalties the directive merely states that they should be “effective proportionate and dissuasive”. Again only the courts can decide whether they put more weighting on the effective, dissuasive or proportionate bit.

There is a lot of activity in the standards and industry cluster groups in the USA to standardize material declarations. The following is from an article by Richard Kubin of E2open published on Circuitnet.

“There are activities well underway to develop standard formats for material composition data reporting and exchange. The draft “Material Composition Declaration Guide”, developed by EIA/EICTA/JGPSSI and commonly referred to as the Joint Industry Guide (JIG), will soon be released as an EIA/JEDEC standard. This provides guidance on the reporting requirements to meet RoHS compliance.

iNEMI has been working to develop a draft Material Composition Declaration (MCD) format and data collection process that will use the JIG as a reference for reportable substances and methods. A new IPC Standard (IPC-1752) for MCD data exchange is

being developed based on the iNEMI work and is being coordinated with RosettaNet (a consortium of major Information Technology, Electronic Components, Semiconductor Manufacturing, Telecommunications and Logistics companies working to create and implement industry-wide, open e-business process standards) to establish data exchange standards as well as a form-based input mechanism. These will be validated through pilot projects over the next few months.

The full article is linked from the RoHS and WEEE support website at www.electronicssouth.com. It is well worth a read.

One thing I have realized is that companies have two choices.

- 1) Add a flag to their component databases/item masters to show “RoHS compliant” or “not RoHS compliant”.
- 2) Modify their component databases to include all the substances of present and potential interest that are in each component. This forms a Material Composition Database at component level

Option one is the easy one but is a short term sticking plaster because when the next substance gets banned you have to go through the whole supplier survey thing again. If you go for option 2 and the database is correctly structured then you only need to flag the newly banned substance and you will get a list of components affected and this can then be rolled up into the BoMS and a report of products affected obtained.

The JIG Material Composition Declaration Guide is a good starting point as this drives into IPC1752 – a copy is obtainable from “Self Declaration” page on the RoHS and WEEE support website www.electronicssouth.com. This guide/standard is based around 2 lists

- 1) The “A” list - presently banned substances including all the RoHS substances
- 2) The “B” list – substances under special interest

It lists all the A and B category substances and provides guidance on a standard reporting

Newsletter No. 1 March 2005

format. The rationale behind the standard is if companies adhere to it then it makes electronic data interchange possible and the big component suppliers are grinding to a halt with thousands of requests for RoHS compliance data each in a different format so they are forced into a manual process.

My advice – bite the bullet and look to building a materials composition database add-n to your component library based on IPC 1752.

R&W

Upcoming seminar.

I am looking to gauge interest in a 1.5 day RoHS and WEEE seminar to be held in Christchurch in May. Harvey Stone of the Goodbye Chain www.goodbyechain.com will be one of the presenters. Harvey runs the largest RoHS and WEEE consultancy in the USA and has presented at most SMTA workshops in the last 2 years. He has also presented 2 SMTA global webcasts on RoHS and WEEE in the last 6 months. The cost will be NZ\$500 for the 1.5 days and we will structure it so that RoHS is covered on the first day and WEEE on the second day, so attendees from Auckland and Wellington could feasibly attend for only the first day if WEEE was not of interest. However if there is enough interest to fill 15 places in Auckland or Wellington then we would consider holding an additional seminar in either of these two places. Please email rsommer@sommerconsulting.co.nz by Wednesday 23rd – yes this Wednesday to register interest. Note this is not a booking as I need to gauge interest before booking Harvey Stone or someone is going to be out of pocket.

R&W

Anecdotal stuff

Why is “lead” (Pb) and “lead” as in the bit that sticks out the end of the component spelt the same? Search on the web on lead-free and you have to sift through all the suppliers that are giving away free leads with their multi-meters.

Material declaration received from an Asian BGA supplier “There is no lead in the device the device is lead-free – all the lead is in the balls under the device.” Doh!

Metal Finishing Workshop

In February 20 like minded people from the electronic, electrical, metalworking, metal finishing and chemical supply industries got together at the Commodore Copthorne Hotel in Christchurch to nut out a solution to the ban on Hexavalent Chromium. The result was an interim report and 3 trials being conducted over the next 2 months on alternatives. At this point we are confident that there will be a technical solution and a further report will be published in May.

Here are some of the happy and well fed participants.



Hot links

www.circuitnet.com is the best daily newsgroup to keep abreast globally of RoHS and WEEE. Most days they run at least one article. It is free, no spam and easy to subscribe to.

Call for feedback

This is your newsletter, please let me know rsommer@sommerconsulting.co.nz what is of interest as if it is of interest to you can be sure that there is plenty of others out there who would be asking the same questions.

A word of thanks to our Sponsors

This newsletter and the RoHS and WEEE website are made possible by an initiative and funding from New Zealand Trade and Enterprise, Electronics South and the Canterbury Electronics Group