

WEEE and RoHS: China develops its own approach

The first-ever joint German-Chinese environmental symposium, sponsored by C&E Recycling Portal (C&ERP) and SGS Deutschland, was held recently in Osnabrück, Germany. It emerged that Chinese regulations covering waste electrical and electronic equipment and the restriction of the use of hazardous substances are based to a significant extent on international experience in these fields. However, some concerns persist over the potential impact of these regulations on, notably, the free flow of goods.



Figure 1:
Identification standard
according to China-RoHS

Standard classification

Definition of the material type
(Requirements for concentration limits)

EIP-A

Homogeneous materials for the composition of electrical appliances (allowable Pb, Hg, Cr VI, PBB, PBDE equals 0.1% of weight, allowable Cd equals 0.01% of weight)

EIP-B

Metal coating of each individual component in the electrical appliances (Pb, Hg, Cd, Cr VI should not be added intentionally)

EIP-C

Small parts or materials that cannot be removed from the electrical appliances; the size of such products is usually less than or equal to 4 mm³ (Pb, Hg, Cr VI, PBB, PBDE may not exceed 0.1% of the weight, Cd may not exceed 0.01% of the weight)

Exactly one year ago, C&ERP emerged from a joint venture between Germany's Hellmann Process Management and CHEARI, the Chinese association of household appliance manufacturers. In September this year, a number of renowned Chinese and German experts arrived for the two organisations' first-ever joint environmental symposium to discuss Chinese regulations covering: waste electrical and electronic equipment (China-WEEE); and restriction of the use of hazardous substances (China-RoHS).

Liang Feng, Director of Resources Comprehensive Utilization Division at the Department of Environment & Resources Conservation, presented the Chinese government's proposal to return and recycle used electrical and electronic low-heat appliances in front of nearly 100 international guests. He stated that a draft law developed over five years is based on international experience while also considering national circumstances.

The basic idea is to make manufacturers responsible for recycling used electrical and electronic appliances while the Chinese government will facilitate a recycling system. In its introductory phase, the new law would mainly affect all video terminals, cooling units, washing machines, air conditioners and computers. Manufacturers would be responsible for financing the recycling process for these types of used appliance. According to Mr Feng, there will be state funding for the construction of recycling facilities. A registration sys-

tem for all affected devices - similar to that in Europe - will be established in China shortly.

China-RoHS regulations

In a second key presentation, Wen Lei, Vice Director of the Department of System Reform and Market of the Ministry of Information Industry (MII), introduced the China-RoHS regulations which have been in force since March 1 this year. These affect all electrical appliances brought to the Chinese market, with the exception of military and exported electrical and electronic appliances.

The key points are as follows:

- * Electric appliances brought to market must be identified with the Environmental Friendly Using Period if they fall under the area of application and are listed in the Key Administrative Catalogue (each product in this catalogue must be certified according to CCC before being sold in or imported into China);
- * The names and ingredients of hazardous substances contained in electrical appliances brought to the Chinese market must be identified;
- * Manufacturers and importers of electrical appliances must explicitly identify the names of hazardous substances on product packaging;
- * Hazardous substances contained in electrical appliances must conform to relevant national and industry standards;
- * The products listed in the Key Administrative Catalogue (a product catalogue is expected to be

published in 2008) are subject to China's Compulsory Certification (CCC certification).

According to Mr Lei, three standards have been published to date covering: identification (see Figure 1); threshold values; and test methods for hazardous substances. He indicated that the requirements for concentration limits are formulated more clearly than those in the EU's RoHS guidelines. This is because China-RoHS comprises various classifications on which the concentration limits for hazardous substances are based - a fact that has been verified by attending European experts.

Comprehensive certification

After this introduction to the detail of China-RoHS, Chinese expert Quan Pan, Director Material Analysis and Testing Centre at CHEARI, explained more about the extremely comprehensive CCC certification process and the tests according to China-RoHS. But he emphasised that, prior to the publication of the Key Administrative Catalogue, manufacturers would have to identify only the content and location of hazardous substances and use corresponding identification (see Figure 1).

Whether corresponding standard European test methods will be recognised when affected appliances are imported into China remained unclear after the presentations. According to statements made by attending European market experts, this would be a key requirement for the free flow of goods. They indicated that the acceptance of test methods according to the ISO standard was an essential prerequisite for open markets.

In their speeches, both Nadine Michael of C&ERP and Dr Udo Krischke of SGS emphasised that both Chinese and European manufacturers wanting to market their devices in Europe or China face a huge challenge in order to meet all current regulations related to electrical and electronic appliances. This

is why C&ERP and SGS offer a comprehensive range of services in German, English and Chinese - from consulting and legal conformity to test methods. Furthermore, representatives from these companies are involved in numerous committees and will continue to promote the harmonisation of WEEE and RoHS with their Chinese counterparts via the C&ERP recycling platform.

Positive overall results

Kathrin Gause from the German Federal Ministry of the Environment and Jürgen Wituschek from the German Federal Ministry of Economics called for improved harmonisation within Europe. However, they also said that Germany considers the overall results to be positive after more than one year's experience with the ElektroG electrical and electronic appliances law.

According to Ms Gause, a trend-setting, cost-effective system has been created for both manufacturers and consumers. When asked why Germany has not published any monitoring results, she confirmed that there are, in fact, problems with data collection via the EAR foundation. The 2006 figures are not expected to be published until the end of 2007.

Commenting on whether the increase in environmental regulations could lead to market restrictions, Mr Wituschek criticised the WEEE and RoHS standards being discussed in China. He indicated that regulations need to be harmonised as far as possible, and that the high technical measurement and certification standards of individual states needed to be recognised in order to facilitate free global trade. Any other approaches could easily reach protectionist proportions, he said.

Symposium manager Dr Beate Kummer summarised the event thus: 'We will require more regular exchanges with Chinese experts in the future. When new recycling regulations are implemented

in China, mistakes and false starts in our European system should be taken into account. But above all, we need to work on global harmonised regulations; this is the main challenge facing our political representatives in the EU and China.' □



Symposium manager Dr Beate Kummer: 'We need to work on global harmonised regulations; this is the main challenge facing our political representatives in the EU and China.'

For additional information, please contact:

* Dr Beate Kummer
(Environmental Communication),
Bad Honnef, Germany,
Phone: +49 2224 9011480,
Fax: +49 2224 9011481,
E-mail:
buero@beate-kummer.de
www.beate-kummer.de

* C&E Recycling Portal,
Osnabrück, Germany,
Phone: +49 541605 1580,
Fax: +49 541605 1588,
E-mail: info@ce-weee.com
www.ce-weee.com



The speakers of the congress, from the left to the right: Xuwei Bing (C&ERP), André Pohl (C&ERP and Hellmann Process Management), Holger Busch (SGS Germany), Dr. Beate Kummer (Kummer Umweltkommunikation), Wen Lei (Department of System Reform and Market of China's Ministry of Information Industry), Klaus Hellmann (Hellmann Worldwide Logistics), Prof. Han Zuo Liang (CHEARI - China Household Electric Appliance Research Institute), Der. Udo Krischke (SGS), Kathrin Gause (German Environmental Ministry), Nadine Michael (C&ERP and Hellmann Process Management), Dejun Ma (National Household Electric Appliance Standardization), Quan Pan (CHEARI).