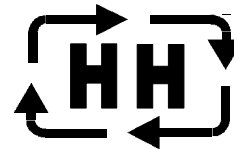


## NH/HH-Recycling



Verein zur Förderung des umweltgerechten Recycling von abgeschalteten NH/HH-Sicherungseinsätzen e.V.

### DEVELOPMENT OF LEGISLATION IN THE AREA OF ENVIRONMENTAL PROTECTION IN EUROPE AND EFFECTS TO BE EXPECTED ONTO THE FUSE INDUSTRY

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**Abstract:** Environmental protection is a particular challenge for the increasing European community. In addition to the presentation of the corresponding legislation to be expected until 2006 respectively 2008 in Europe, possible influences of the legal regulation on manufacturing, transportation and distribution of fuse links are outlined. As far as available, replacements of materials and alternative procedures will be indicated.

Environmental protection is a particular challenge for the increasing European Community. In future, there will be three basic essentials, which are the taking back and recycling, the restriction of substances and in the near future, the eco-design requirements.

The WEEE – Directive, it stands for “Waste of electrical and electronic equipment” which will come into force in August 2004 is the core of a taking back and recycling system. The countries have to install a collection and take back system free of charge for consumers that ensures the return of the electronic equipment from August 2005.

The producers have to warrant financing of disposal take care for correct recycling and recovery of waste. In this case, the European legislation is the minimum requirement for national legislation and it concerns also “... other monitoring and control instruments used in industrial installations (e.g. in control panels)”. (Cat. 9).

The “Restriction of use of certain hazardous substances in electrical and electronic equipment,” (RoHS) will come into force in August 2004, valid in July 2006. There are no national differences or exemptions with material restrictions. Today, the equipment category 9 “monitoring and control instruments” is exempted from RoHS, but the reviews every 4 years may lead to the cancellation of all exemptions. The expected limits are (07/2003), e.g. 0,1 wt.% for Pb, Hg and 0,01 wt.% for Cd.

The third column has to guarantee the design and production in an environmentally more efficient way. The Eco-design requirements for energy using products (EuP) are estimated 2008 for coming into force. The first official draft of the European Community is in preparation.

What effects have all these arising requirements on the Fuse Industry and what has to be done? First of all, the critical substances in fuses have to be recorded already, today! What kind of substances which are probably included in fuses are concerned? Well known are Pb, Cr(VI), Cd, Halogenides, - the polyprominated biphenyls (PBB) and polyprominated diphenylethers (PBDE). For the most of these substances mentioned before are technical solutions existing or in development. The producers have to qualify and to use them. In the next step, when the critical substances are identified, the producers should design roadmaps for the substitution to non-hazardous substances. And what is the matter with a “Taking back and recycling system” the WEEE asked for? A system like this is already existing in Europe for fuse links. The different countries or manufacturers can easily copy the principle of this system, which is well known in Germany as “Association for the promotion of environmentally-compatible recycling of disused LV HRC/HV HRC fuse links.”

The manufacturers in Great Britain started also with a system like this and colleagues from The Netherlands are really interested and are collecting fuses. In a pilot phase the NH/HH – System, as we call it in Germany can be accommodated and extended to all European countries. For the future, we all have to design and produce our fuse-product in an environmentally more efficient way regarding the known EuP-principles for new design and production. So we can save our environment – it is the only one we all have got.