

The RoHS and WEEE directives

Below follows a description of how the WEEE and RoHS directives concerning Electrical and Electronic products (EE-products) affect Westermo, *read more about the aims and background of the directives in appendix 1.*

How does the WEEE directive affect Westermo?

The WEEE directive means that as manufacturers/producers we have a responsibility concerning the separate collection of electronic waste. A symbol with a crossed out wheeled bin on the product indicates that it is subject to collection. As the manufacturer we bear responsibility to mark our products. The symbol can be found on all Westermo products.

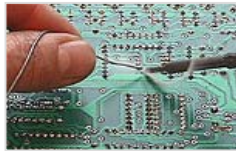


As a responsible producer in Sweden, we have chosen to collaborate with *El-kretsen* to provide a fully functioning return system where those wishing to deposit EE-products that have become waste can do so. In Sweden we report the sales of EE-products to the *Swedish National Environmental Protection agency*, which is the national authority responsible for the WEEE directive.

How does the RoHS directive affect Westermo?

Of those substances banned due to RoHS, it is primarily the *ban on lead* that will require modifications and adjustments at Westermo. A changeover to lead-free production/soldering involves:

- New raw materials/materials
- Changes to materials handling
- Redesign of products



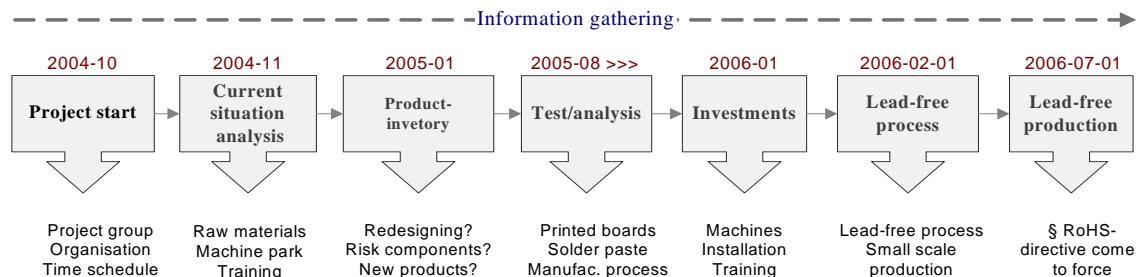
- Investments in the machine park
- Modified manufacturing processes
- The need of training/expertise

Planning

Since the autumn of 2004, Westermo's project group has worked with issues concerning the requirements set out in the RoHS and WEEE directives as well as the consequences these will have on our product development.

Our aim is to start producing lead-free on a small scale by the beginning of February 2006. Full scale, lead-free mass production will be operational at the latest by 01/07/2006.

The figure below shows Westermo's overall planning for work towards lead-free production:



In summary we can ascertain that the changeover will be troublesome and heavy on resources. One problem is that not all components will be available in a RoHS-compatible design.

Nevertheless, it is our objective to convert virtually our entire product range to lead-free with the possibly of a few exceptions for products manufactured in very small batches. We plan to meet this through redesigns or in some other way provide alternative replacement products.

Eskilstuna 07/11/2005

Jimmy Pennala

APPENDIX 1

RoHS and WEEE directive

The ¹RoHS directive comes into force on 01/07/2006. Its purpose is to ²limit certain hazardous substances such as mercury, chromium, cadmium, lead, PBB and PBDE in *electrical* and *electronic products*, (EE-products).

³The WEEE directive is linked to RoHS and comes into force on 13/08/2005. The purpose of the directive is to reduce electronic waste and to simplify the recycling or collection of electronics. The directive involves a *producer responsibility* for EE-products.

Producers shall contribute to the finance and bear responsibility to ensure that a fully functioning collection system is in place for its spent products. In the directive *producer* refers to those manufacturing and, under their own name, selling EE-products. *The producer* is also the party that imports and then sells EE-products within EU.

Producer responsibility means that a register must be drawn up for producers of EE-products in the EU-countries. Each *producer* must report the sales of products embraced by the WEEE directive (in Sweden from 13/08/2005) to the agency which within each EU country manages the register. This means that each producer bears responsibility for the financing of the products they have put on the market.

The RoHS directive's ban on hazardous substances applies to the products included in the WEEE directive's *product categories*, with the exception of categories 8 and 9.

That is to say, the WEEE directive applies to the product categories 1-10 while the RoHS directive applies to the same categories except for *medical devices* (8) and *monitoring and control instruments* (9).

The WEEE directive's product categories for electrical and electronic products

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| 1. Large household appliances | 6. Electrical and electronic tools |
| 2. Small household appliances | 7. Toys, leisure and sports equipment |
| 3. IT and telecommunications equipment | 8. <i>Medical devices</i> |
| 4. Consumer equipment | 9. <i>Monitoring and control equipment</i> |
| 5. Lighting equipment | 10. Automatic dispensers |

A regular misconception is that only "*newly developed*" products are embraced by the directive, which is *not* the case! All, i.e. existing products are affected too. Excluded product categories from the RoHS directive are, besides category 8 and 9, also *military electronics*.

A certain use of lead, mercury, cadmium and hexavalent chromium is exempt from the ban. Some exceptions apply for the present while others are limited through the application of limit values. The exception applies if no *available technology* is yet available to completely or partly permit production without the banned substances. The exceptions will be audited by the EU commission at least every fourth year and are to be removed from the exception list when alternative substances /techniques have been developed.

Spare parts intended for repairs of EE-products that were released on the market before 1 July, 2006 are not embraced. That is to say, it is permitted to use e.g. components containing lead in spare parts and for the service of products manufactured before 01/07/2006.

1 DIRECTIVE 2002/95/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

2 Permitted limit values for lead, mercury, hexavalent chromium, PBB and PBDE are 0.1 % by weight. For cadmium the limit value is 0.01 % by weight.

3 DIRECTIVE 2002/96/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 January 2003 on waste electrical and electronic equipment (WEEE).

APPENDIX 1

Products that are *a part of an end product* - which is not embraced by the WEEE directive - shall neither be embraced by the demands in the RoHS directive. For example, a product, fitted on an aircraft does not need to be embraced by the RoHS directive, as the “end product” the aircraft is not embraced by the directive. Consequently, it means that in the end it can be the customer's *application* that governs whether the directive applies or not.