

The RoHS Directive

History Behind the RoHS Directive

The Restriction on Hazardous Substances (RoHS) Directive is the European Union's answer to what it perceives to be a growing concern: the accumulation of hazardous wastes resulting from consumer products. The seed for what would later become the RoHS Directive was planted in 1988 when the European Union (EU) Council instituted a resolution and invoked a community action program to combat cadmium pollution.

Almost a decade later, in 1996, a review of the EU's strategy for waste management identified the need to reduce certain hazardous substances and to create community-wide rules regarding waste management. In the year 2000, the first draft of the RoHS Directive was born. A common position text was published late in 2001 and the proposition re-entered the European Parliament during April of 2002 for a second reading. These discussions yielded significant amendments to the original directive proposal.

After the completion of the 'conciliation process', the directive was published on February 13, 2003. Currently, the responsibility belongs to the governments of individual EU member-states to implement the Directive by passing appropriate legislation in their own countries by August 13, 2004.

As of now, the EU's timeline for the RoHS directive is as laid out in Figure 1 below.

Stipulations of the RoHS Directive

The main principle behind RoHS is that the Producer – Polluter – is responsible. The Directive defines a "Polluter" or "Producer" as:

"Any entity that manufactures electronic equipment which it sells, by whatever means, including 'distance' selling, under its own Brand(s).

Any entity that re-sells, under its own Brand(s), equipment produced by other suppliers, irrespective of global source of manufacture.

Any entity that imports or exports electronic equipment on a professional basis into, or from, ECC Member States."

Resellers, distributors, and integrators who market product not marked with their own brand as well as financial institutions providing exclusive financing for projects or programs are exempt any liability, providing that they do not breach other criteria defining "Producer" or "Polluters".²³

The RoHS Directive applies to the following categories of equipment:

- > Large household appliances
- > Small household appliances
- > IT and telecoms equipment
- > Consumer equipment
- > Lighting
- > Electrical and electrical tools
- > Toys, leisure and sports equipment
- > Automatic dispensers

As of now, a proposal to apply the requirements of the Directive to equipment in two additional categories – medical devices and monitoring and control instruments – is expected in 2008.

By July 1, 2006, all electrical and electronic equipment produced in the European Union must contain no more than the permitted percentage trace levels of the following substances:

- > Lead
- > Mercury
- > Cadmium
- > Hexavalent Chromium
- > Polybrominated Biphenyls (PBB)
- > Polybrominated Diphenyl Ethers (PBDE)

The list of materials will be under constant review. It will be added to and permitted trace levels will be changed on the basis of best scientific advice. There are exemptions for specific applications which are listed in the Annex to the Directive.

Implications for Producers and Manufacturers

The RoHS Directive brings numerous challenges to the electrical and electronic devices industry. One of the biggest challenges companies are facing with RoHS is proving that their products are compliant. The testing, documentation and certification processes that will be required to prove compliance with RoHS have many companies scrambling to find a cost-efficient plan of action. The RoHS Directive currently requires that producers provide some sort of certification that their products are RoHS compliant but it provides no direction or guidance on how to go about doing it. The Directive simply states that producers "must have IT systems and audit trails in place to be able to prove conformity" throughout the entire supply chain and manufacturing cycles.

Thus, beyond the obvious challenges of actually reducing or eliminating the materials listed under the Directive from their products, companies must spend resources:

- > Auditing all component suppliers and expediting certificates of conformity and statements of pollutants
- > Designing, testing and implementing IT system modifications to track pollutants and roll up aggregate percentages at Bill of Material (BOM) subassembly and whole-unit levels.
- > Populating and maintaining databases
- > Gearing up for global roll outs of their compliant product.

Figure 1: Timetable of the RoHS and WEEE Directives

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|-------------------|---|
| 2005 | Regulations for WEEE and RoHS to be made |
| August 13, 2005 | Producer responsibility for financing commences alongside retailer take-back. |
| July 1, 2006 | RoHS substance ban commences |
| December 31, 2006 | Collection and recycling targets to be achieved |

Belden CDT Europe's Environmental Position

At Belden CDT, we pride ourselves on being an environmentally friendly and aware producer and manufacturer. Many of our products are already compliant with these noted regulations. Product disclosures are available upon request. Please check the Belden CDT websites for product information to minimize the need for formal product disclosures. Specific requests should be directed to Belden CDT Europe Customer Service Department for consideration. Belden CDT Europe plans on being well ahead of the government and standards regulations being currently set in the European Union.

Belden CDT has set the following time line for its operations:

USA:

- > September 2003:
Fully compliant with the California Proposition 65 Consent Judgement
- > January 2004:
Compliant to EU ELV by customer request; 50% compliant RoHS
- > January 2005:
Fully compliant with EU BFR; 80% compliant RoHS
- > July 2005:
Belden CDT USA 99% compliant RoHS

Europe:

- > January 2005:
Belden CDT Bagnacavallo/Lugo fully compliant RoHS
- > April 2005: Belden CDT Venlo fully compliant RoHS
- > December 2005:
Belden CDT Littleborough fully compliant RoHS
- > December 2005: Belden CDT Örebro fully compliant RoHS
- > December 2005: Belden CDT Decin fully compliant RoHS
- > December 2005: Belden CDT Manchester fully compliant RoHS
- > December 2005: Belden CDT HEW fully compliant RoHS
- > December 2005: all facilities are fully compliant by the 2006 RoHS and WEEE Directive deadlines

Currently, BeldenCable™ products do not contain:

- > Asbestos
- > Mercury
- > "di-(2-ethylhexyl)phthalate" (DEHP)
- > Hexavalent chromium
- > PBB
- > PBDE

Furthermore, Belden does not use "endangered species products" in any of its products or processes.

Belden CDT Europe is working diligently toward compliance in all product areas. Given our current success to date – and the anticipation of meeting all regulatory deadlines by July 2005 – Belden Cable will be identified as RoHS Compliant by a green label affixed to either the box or the reel rather than a change in part number. Details for each product will be made available on the company website – including compliance markings and date of compliance.

To meet global environmental product requirements, Belden CDT Europe has developed a restricted materials specification to encompass all raw materials, parts, components or products that are ultimately incorporated into the product that Belden markets. Belden CDT Europe will continue to monitor regulations and initiatives around the world to continue providing high quality, "best in class," solutions to customers for years to come. Look for the following logo to appear on Belden CDT's literature to identify RoHS-compliant products.



Disclaimer:

The information provided in this Product Disclosure, and the identification of materials listed as reportable or restricted within the Product Disclosure, is correct to the best of Belden CDT Europe knowledge, information and belief at the date of its publication. The information provided in the Product Disclosure is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. This Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product. This paper covers products sold under the Belden and BELDEN Cable brands only. Products sold under the Alpha® and Manhattan® brands are not covered in this paper. For further details on these products, contact the respective Belden CDT Europe company office.

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¹ http://www.greenstart.org/efc9_old2/bfrs/background.htm

² The European Union Restriction of Hazardous Substances Directive nil-value ELVs at treatment facilities