

EC2000 & Beyond

Major Changes Proposed for the Low Voltage Directive

by Arthur E. Michael,
Editor, Int'l Product Safety News*

The working document *LVD Update.4* details proposals which have been in development since 2001 for updating of the Low Voltage Directive 73/23/EEC (LVD). There are significant changes proposed and we draw your attention to the following:

Re Voltage Range: "... for use with a supply or output voltage not exceeding 1000 Volt for alternating current and 1500 Volt for direct current.... ." The minimum voltages, previously designated as 50V AC & 75V DC are noticeably absent in the proposal. Therefore, the lower end of the range is proposed to be 0V AC or DC.

Re Components: "The directive shall not apply to the following equipment: Basic components intended to be incorporated into electrical equipment whose compliance with the essential requirements of this Directive cannot be assessed independently".

The original LVD called for equipment to be "safe" - and then is fairly quiet on what "safe" entails. The proposed directive, in Annex I (titled, *Essential health and safety requirements*) provides a long list of required 'protections'. Under the topic of *Electric Shock and other electrical hazards* it lists: Leakage Current, Energy Supply, ESD, Arcs - and these must all take into account electrical, mechanical, chemical and physical stresses.

Additional hazards that the user must be protected from include Fire Hazards, Mechanical Hazards, Other Hazards (including explosions caused by the product itself or by substances produced, emitted or used by the equipment); this section lists an additional 12 subdivisions of hazards.

Annex I also calls for protection against hazards arising from incorrect functioning, hazards arising from electric, magnetic and electromagnetic fields, other ionizing and non-ionizing radiation. Ergonomic compliance is also a requirement of this proposal.

The proposal provides a detailed listing of *Information Requirements* which covers elements such as identification of the equipment by means such as type, batch, serial number or similar. It also requires instructions, identification of the manufacturer, and the name of the responsible person in the EC if the manufacturer is not established in the EC. The proposal calls for instructions for safe installation, maintenance, cleaning, operation, storage and warnings where potential risks are not evident.

There is much more of interest in this proposal that we cannot address due to space considerations. The full report, titled, *LVD Update.4* can be found on the Europa site at:

<europa.eu.int/comm/enterprise/electr_equipment/lv/direct/lvupdate4.pdf>

And, a report commissioned by the UK's Dept. of Trade and Industry, titled, *Limited Regulatory Impact Assessment on the revised limits for the Low Voltage Directive*, dated APR 2002, can be found at:

<www.com-met2005.org.uk/events_lit/newsletters/DTI_LVD_Report.pdf>

Reprinted with the kind permission of *Int'l Product Safety News*, Vol 16, No, 5 Sept/Oct 2003.

About the Author

Arthur E. Michaels has nearly 30 years of diverse design experience, ranging from reactor controls and space vehicle guidance systems to consumer products. He is the editor of "International Product Safety News", a past president of the Northeast Product Safety Society, Inc. and lectures throughout the US, Europe and Asia.