

RESTRICTION OF HAZARDOUS SUBSTANCES (RoHS) LEGISLATION

European Directive 2002/95/EC of January 2003 requires that a number of substances, including lead, cadmium, hexavalent chromium and some bromine-based flame retardants must be eliminated from a range of electrical and electronic products by July 2006.

The following categories of electrical equipment are outside the scope of RoHS:

- Fixed installations
- Large-scale stationary industrial tools
- Monitoring and control instruments, including those used in industrial installations (undergoing review during 2006)

Various guidelines have been published to assist manufacturers and their customers to decide whether their products are within the scope of RoHS¹. Such guidelines are not exact definitions of the law, but they are the best available indications of its intended application. These confirm that variable speed drives are outside the scope.

Control Techniques manufacturing plant is approved to the environmental standard ISO 14001, which includes an assessment of the environmental impact of its products. Known hazardous substances are avoided wherever practicable. For example, all major plastic parts use flame retardants which are free of halogens.

The substitution of lead-free solder for the long-established tin-lead alloy is a major step which requires careful consideration. The experience does not yet exist to establish the long-term reliability of lead-free soldering processes sufficiently for their use in industrial manufacturing equipment or other equipment where an operating life of at least ten years is expected.

Many of the components used in Control Techniques products are already free of lead, but the assembly process uses tin-lead solder. Control Techniques is carrying out trials and participating in joint research activities with other Emerson companies, with the objective of ensuring that the necessary reliability can be achieved with lead-free solder. Conversion to the lead-free process will be carried out when this objective has been achieved, and in accordance with the relevant legislation.

Control Techniques Ltd
21 February 2006

¹ e.g. <http://www.rohs.gov.uk/DecisionTree.aspx>, FIEEC/GIMELEC guide for the implementation of the RoHS Directive