

COLLECTION OF CTL DECISIONS

Decision Sheet

[w1][w2][w3]

Standard(s): 60950-1:2001 Ed. 1	Sub clause(s): Sub-clauses 1.7.2, 2.7.6	DSH – 559 Page 1 (2)
Subject: Compliance criteria for safety graphical symbols according to IEC 60417-1, ISO 3864, and ISO 7000.	Key words: <ul style="list-style-type: none"> • Markings and instructions • IEC 60417-1, ISO 3864, ISO 7000 • Safety colours and safety signs 	Decision confirmed by CTL at its 42nd meeting 2005 in Cancun
Question: Is compliance with the safety colours and contrast colours stipulated in ISO 3864 required when the safety graphical symbols are moulded (e.g. on the back of a computer monitor) on a plastic enclosure?		
Decision: <p>Compliance with the safety colours and contrast colours stipulated in ISO3864 is optional when the safety graphical symbols are moulded on the outside of the enclosure of ICT products.</p> <p><i>Note: Any symbols (per IEC 60417, ISO 3864 and ISO 7000) reproduced in colour on Information Communication Technology (ICT) products shall be as described in the respective referenced standards, including requirements for colours. However, if the symbols are not reproduced in colour, they are not required to comply with the requirements for colour in the referenced standards.</i></p> <p>Explanatory Notes:</p> <ol style="list-style-type: none"> 1. Safety graphical symbols may be required and used per IEC 60950-1, Sub-clause 1.7, which in turn refers to IEC 60417-1, ISO 3864, and ISO 7000 necessitating the graphical symbol to comply with the safety colours and contrast colours as stipulated in these two ISO standards. It is a very common industrial practice that such safety graphical symbols are moulded on the plastic enclosure of electrical appliances without complying with the colour requirements as spelled out in the ISO standards. <p><i>Notes:</i> <i>IEC 60417-1 stipulates colour requirements on some of its symbols by the following statement: “If this symbol is reproduced in colour, the colour of the dots shall be red (left), blue (top), and green (right)”. This reveals that it is not mandatory for symbols to comply with the colour requirements.</i> <i>ISO 7000 does not appear to have any colour requirements on symbols.</i></p> <ol style="list-style-type: none"> 2. ISO 3864 – Safety Colours and Safety Signs – Part 1: Design Principles for Safety Signs in Workplaces and Public Areas. This ISO standard was originally and specifically developed for safety signs in workplaces and public areas, and not for ICT products. We can waive the colour requirements as we are applying such symbols in applications that were not originally designed for. 3. Some national standards like CSA C22.2 No. 1: 2004, Clause 5.3.2 (Audio, Video, and Similar Electronic Equipment), and UL 1492: 1997, Figure 129.2 (Audio-Video 		

Products and Accessories) allow a moulded or engraved warning that is not in contrasting colours. These two standards stipulate that the letters of the warning shall be raised 0.5 mm above or lowered 0.5 mm below the surrounding surface level of the enclosure to provide contrast and definition.

4. Multi-colour moulding, though not impossible, is very expensive; particularly considering the low cost and size of an average ICT product plastic enclosure (e.g. computer monitor).
5. Safety warning graphical symbols, with conspicuous colours per ISO 3864 , are in principle required for safety signs in workplaces and public areas, and for industrial type equipment or any equipment that may cause serious injuries. ICT Products complying with IEC 60950 Series of standards will require, in most cases, a safety graphical symbol for user information only (i.e. an exclamation mark inside a triangle), and will not rely upon safety graphical symbols to prevent hazards.
6. Millions of ICT products with safety graphical symbols moulded on the enclosure and not complying with the colour requirements of ISO 3864 are in use in the field without any incidents reported.

Note: If this proposal is accepted and approved by CTL, CSA International will submit a New Work Item Proposal to TC 108 to introduce the requirements as described under Explanation Note #2 above into IEC 60950-1.