ONE of the changes in Part C of Amendment No 2: 2004 clarifies the requirement for cables concealed in a thin wall or partition. It may be helpful if the complete Regulation is reproduced here. It is available in Part C of Amendment No 2 which is free from www.iee.org/technical.

The requirements of old regulations 522-06-06 and 522-06-07 have been included in one regulation as it is considered that the four alternative protective measures are equally acceptable. The particular concern has been with respect to thin walls or partitions, i.e. walls and partitions of thickness of 100 mm or less. Clearly for such walls there are particular concerns with respect to damage to cables from fixings penetrating from the side of the wall or partition where the accessory is not visible.

The zones generally remain unchanged as shown in Figure 1. The change is with respect to the reverse side, i.e. the side of the wall on which there is not an accessory. The Amendment allows a zone on this reverse side providing the location of the accessory can be determined from this reverse side as is shown in the drawing. In the drawing it is possible to walk through the doorway from a room without an accessory and see that there is an electrical accessory on the other side and judge that it is likely that there are cables installed in the thin wall. This relaxation only applies to walls of 100 mm thickness or less. For thicker walls the 5 cm distance from the reverse side is to be maintained or precautions taken.

METAL-FRAMED PARTITIONS
A Coroner’s Report has recently been made available describing the circumstances where a person working on a building site was electrocuted as a result of the frame of a metal partition becoming live. An unfortunate series of events led to this fatality. The prime problem was that during the construction of the walls and fixing of the cladding, screws of incorrect size were used and a cable was so positioned that one screw held the cable fixed whilst a second screw penetrated the cable, making the frame alive. The frame was not generally accessible, as it was covered with an insulating medium, and the accident arose whilst working in loft space when a metal vent pipe was drawn into contact with the live partition frame.

The joint IEE/BSI committee has yet to discuss this regrettable incident. The HSE is investigating and the report is awaited. The previous guidance of the joint committee has been that steel framework would generally require neither earthing nor main bonding provided insulated and sheathed cables were used and the manufacturer’s instructions were followed with respect to sleeving when passing through cut-outs in the steel work were followed. The committee also advised that any rough burrs
should be removed from the edges of steelwork where cables pass through.

The guidance from the IEE/BSI committee has required that manufacturers’ guidance be provided and followed. Of course it is necessary for any electrical installation to be inspected and tested during and on completion of the works and before being made live. The particular hazards now identified as being associated with metal-framed partitions will encourage all of us in the electrical and plumbing trades to take care that installations are properly carried out and inspected and tested during and on completion of work as necessary. Installations should never be made live before such inspections and tests have been carried out in accordance with BS 7671 : 2001 and to the satisfaction of the responsible person.

Figure 1: Thin wall or partition showing extension of zone to the reverse side of the wall where the accessory is accessible from the reverse side. (courtesy of NICEIC)