



Review of Guidance Note 8

Bill Allan gets to grips with the latest release from the IET

The IET (inheritors of the IEE brand) have published the latest offering in their series of guidance notes with Guidance Note 8 dealing with earthing and bonding.

GN8 has a green cover which, considering the topic, seems reasonably appropriate but the timing of this publication seems a little odd with the introduction of the 17th Edition of BS 7671 scheduled for next January.

However, the inside front page states that any amendments which need to be made to GN8 as a result of the 17th Edition will be freely available from the IET website. The co-operating organisations' page contains a list of the usual suspects while the preface and introduction follow that of the other guidance notes fairly closely.

First impressions

On first flicking through GN8, the reader is pleasantly surprised to see that, unlike the previous guidance notes, it is profusely and colourfully illustrated. Nearly every page has a clear, coloured and easy-to-follow illustration. This change in style may be explained by another departure from previous guidance notes – it is attributed in the acknowledgements page to one person, Geoffrey Stokes, formerly principal engineer at the NICEIC.

Contents

The chapter headings are worth reproducing to give a flavour of the publication.

Chapter 1	Protective earthing
Chapter 2	The means of earthing
Chapter 3	The earthing conductor
Chapter 4	System types and earthing arrangements
Chapter 5	Main equipotential bonding
Chapter 6	Extraneous-conductive-parts and their connections
Chapter 7	Automatic disconnection
Chapter 8	Supplementary equipotential bonding
Chapter 9	Circuit protective conductors
Chapter 10	Particular issues of earthing and bonding

Two appendices are included:

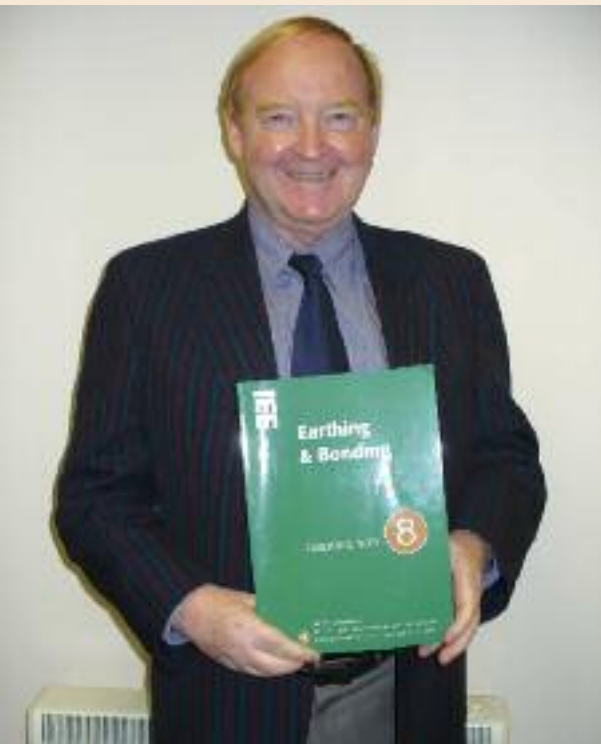
Appendix A: values for k for various forms of protective conductor (this is reproduced from Table 43A and Tables 54B – E of BS 7671).

Appendix B: data for armoured cables (this contains four tables comparing the requirement for the minimum csa of protective conductors in Table 54G of BS 7671 with the actual csa of the steel wire armouring in various sizes of BS 5467 and BS 6724 cables).

The first two tables, Table B1 and Table B2, for copper conductors, appear to be slightly amended and updated versions of Table D10A and Table D10B in Guidance Note 1. Table B3 deals with aluminum conductors in 90° C cables and Table B4 concerns aluminum conductors in 70° C cables.

As with the previous guidance notes, a helpful index is included.

: earthing and bonding



Bill Allan and a copy of IEE Guidance Note 8: Earthing and Bonding.

Careful scrutiny

Following careful scrutiny (to borrow a phrase from Regulation 731-01-03 of BS 7671), it is clear that this publication contains a considerable amount of overlap with other guidance notes, Guidance Note 5 Protection against Electric Shock, in particular. However, the text is written clearly and concisely and extra pages are devoted to giving a more thorough explanation of each topic.

Following is a brief summary of what I consider to be especially helpful in GN8:

Chapter 2 on the means of earthing includes detailed information on earth electrodes. Also

included is a helpful summary of responsibility for providing a means of earthing.

Chapter 5 on main equipotential bonding is useful. I liked the explanation and illustration on touch voltage and also the section on bonding of lightning protection systems. Other useful topics covered in Chapter 5 are, extraneous-conductive-parts common

to a number of buildings, installations serving more than one building and multi-occupancy premises.

Chapter 8 on supplementary equipotential bonding discusses various aspects of supplementary bonding, including the requirements in special locations, such as bath and shower rooms, swimming pools, agricultural and horticultural premises and restrictive conductive locations.

Chapter 9 on circuit protective conductors reviews the general requirements for cpcs. It explains the procedure when using armouring and steel conduit and trunking as a cpc. Also included is an explanation of the difference between protective earthing and functional earthing.

Chapter 10 on particular issues of earthing and bonding will be helpful to many people. I especially appreciated the sections on caravan parks, mobile or transportable units (a diagram would have helped though) and exhibitions, shows and stands.

Conclusion

GN8 represents an impressive improvement in overall presentation and clarity of technical content. NAPIT is pleased to recommend IEE Guidance Note 8 to its members, although there is no requirement to purchase it. In considering the imminent updating of their series of guidance notes to align with the 17th Edition of BS 7671, the IEE will be hoping to maintain this standard.

To obtain your copy of GN8 ring NAPIT on 0870 444 1392.