

Limit state design of structural concrete

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Although the blurb on the dust-jacket immediately refers to CP 110, this book is more a general text-book on structural design than a book dealing with the contents of the Unified Code. The title and the preface make it clear that, although in places the Code approach is described and derived, the authors have included other alternative material where they think it necessary.

The philosophy of limit state design is stated in the first chapter. The second deals with the properties of materials; the sections in this chapter on bearing, bond and shear friction are particularly useful. The design of reinforced and prestressed members is dealt with next in a series of chapters in the following order: bending of non-prestressed members, bending of prestressed members, bending and axial load, shear, and torsion. The book concludes with chapters on slabs, flat slabs and deep beams.

The treatment of these topics is rather patchy; the chapters on bending and axial load and shear are particularly comprehensive, whereas the earlier chapter

on bending of non-prestressed members, considering that it deals with the three limit states, is rather brief. In fact, the two serviceability limit states, cracking and deflection, are dealt with in only twenty pages. Since these are major considerations in limit state design, they are surely worthy of more elaboration.

In places, the book has been written to agree with the draft of the Code rather than the final version. The section on crack control mentions the research from which the Code formula was derived but gives a modified version of the formula in the draft Code; the current Code formula is not presented. Similarly, in deflections, the approach is closer to that used in the draft than in the current version of CP 110. This is not of great importance, however, as the same background material applies and this does not therefore detract from the value of the book as source of reference.

This book will be of most use as a text-book for students and engineers as it describes the subjects generally and is not just an exposition of the Code regulations.

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