

Contents

Chapter 1 Theory and Principles *Dennis Allan and Harold Moore*

Chapter 2 Equipment Types

- 2.1 Power Transformers *H. Jin Sim and Scott H. Digby*
- 2.2 Distribution Transformers *Dudley L. Galloway and Dan Mulkey*
- 2.3 Phase-Shifting Transformers *Gustav Preininger*
- 2.4 Rectifier Transformers *Sheldon P. Kennedy*
- 2.5 Dry-Type Transformers *Paulette A. Payne*
- 2.6 Instrument Transformers *Randy Mullikin*
- 2.7 Step-Voltage Regulators *Craig A. Colopy*
- 2.8 Constant-Voltage Transformers *Arindam Maitra, Anish Gaikwad, Ralph Ferraro, Douglas Dorr, and Arshad Mansoor*
- 2.9 Reactors *Richard F. Dudley, Michael Sharp, Antonio Castanheira, and Behdad Biglar*

Chapter 3 Ancillary Topics

- 3.1 Insulating Media *Leo J. Savio and Ted Haupert*
- 3.2 Electrical Bushings *Loren B. Wagenaar*
- 3.3 Load Tap Changers *Dieter Dohnal*
- 3.4 Loading and Thermal Performance *Robert F. Tillman, Jr.*
- 3.5 Transformer Connections *Dan D. Perco*
- 3.6 Transformer Testing *Shirish P. Mehta and William R. Henning*
- 3.7 Load-Tap-Change Control and Transformer Paralleling *James H. Harlow*
- 3.8 Power Transformer Protection *Armando Guzmán, Hector J. Altuve, and Gabriel Benmouyal*
- 3.9 Causes and Effects of Transformer Sound Levels *Jeewan Puri*
- 3.10 Transient-Voltage Response *Robert C. Degeneff*
- 3.11 Transformer Installation and Maintenance *Alan Oswalt*
- 3.12 Problem and Failure Investigation *Wallace Binder and Harold Moore*
- 3.13 On-Line Monitoring of Liquid-Immersed Transformers *Andre Lux*
- 3.14 U.S. Power Transformer Equipment Standards and Processes *Philip J. Hopkinson*