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Overview; Expansion and Stress Range; Flexibility Analysis; Linear Expansion Due to Heat; Required Flexibility Analysis; SIF Development Methodology and B31-J; Chapter 8: Pipe-Supporting Elements and Methods Calculations; Overview; Support Design; Nonrigid Hangers; Riser Support; Chapter 9: Specialty Components; Expansion Joints; Anchor Flanges
Chapter 10: High-Frequency versus Low-Frequency Vibration CalculationsOverview; Severe Cyclic Service; Types of Vibration; Working With Vibration; Vibration Severity; Chapter 11: Occasional Loads Calculations; Earthquake Occasional Loads; Ice and Snow Occasional Loads; Wind Occasional Loads; Reactions; Chapter 12: Slug Flow and Fluid Transients Calculations; Overview; Water Hammer; Other Transients; Chapter 13: Fabrication and Examination Elements Calculations; Overview; Hydrotest; Pneumatic Testing; Dissimilar Metal Welds; Corrosion Assessment; Pipe Denting or Flattening
Chapter 14: Valves and Flow Control CalculationsOverview; Closure Tests; Incompressible Flow; Compressible Flow; Other Valve Issues; Appendix; Contents of Appendix; Bibliography; Index

Sommario/riassunto

This book is a ""no nonsense"" guide to the principle intentions of the codes or standards and provides advice on compliance. After using this book the reader should come away with a clear understanding of how piping systems fail and what the code requires the designer, manufacturer, fabricator, supplier, erector, examiner, inspector, and owner to do to prevent such failures. The focus of the book is to enhance participants' understanding and application of the spirit of the code or standard and form a plan for compliance. The book is enhanced by a multitude of calculations to assist in proble