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8 Fire Spread Probabilities8.1 Overview; 8.2 Fire Resistant Construction; 8.3 Probability of Failure; 8.4 Fire Spread Probabilities; 8.5 Summary; 8.6 Review Questions; References; 9 Smoke Spread Scenarios; 9.1 Overview; 9.2 Smoke Spread Characteristics and Modelling; 9.3 Smoke Control Systems to Clear Smoke in Evacuation Routes; 9.4 Summary; 9.5 Review Questions; References; 10 Occupant Evacuation Scenarios; 10.1 Overview; 10.2 Occupant Evacuation Characteristics and Modelling; 10.3 Occupant Safety Measures to Expedite Occupant Response and Evacuation; 10.4 Summary; 10.5 Review Questions References11 Fire Department Response; 11.1 Overview; 11.2 Fire Department Response Time and Resources; 11.3 Occupant Fatality and Property Loss Modelling; 11.4 Fire Protection Measures to Provide Effective Occupant Rescue and Fire Extinguishment Efforts; 11.5 Summary; 11.6 Review Questions; References; 12 Uncertainty Considerations; 12.1 Overview; 12.2 What Are the Uncertainties?; 12.3 Treatment of Uncertainty; 12.4 Summary; 12.5 Review Questions; References; 13 Fire Risk Management; 13.1 Overview; 13.2 Fire Risk Management; 13.3 Alternative Fire Safety Designs
13.4 Impact of Inspection and Maintenance on System Reliability13.5 Impact of Evacuation Drills on Early Occupant Response and Evacuation; 13.6 Summary; 13.7 Review Questions; References; Index

Sommario/riassunto

This book arrives at just the right time to facilitate understanding of performance-based fire risk assessment in buildings - an integral part of the global shift in policy away from traditional prescriptive codes. Yung, an internationally recognised expert on the subject of fire risk assessment, introduces the basic principles and techniques that help the reader to understand the various methodologies that are currently in place or being proposed by different organisations. Through his illustration of basic principles and techniques he enables the reader to conduct their own fire risk asses