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Sommario/riassunto	This book provides a comprehensive exploration of how fracture mechanics is applied to solve problems specific to the nuclear industry. It delves into key principles, such as evaluating load capacity, predicting component lifetime, and establishing inspection intervals for cracked materials. The content covers essential topics, including linear-elastic and elastic-plastic fracture mechanics, material properties, crack initiation, fatigue, and stress corrosion cracking. With a focus on practical applications, the book addresses critical components like

reactor vessel, turbine disks, and steam generator tubes, offering valuable insights for professionals in design, material selection, manufacturing, and inspection within nuclear power plants, as well as serving as a useful resource for students in related engineering courses.