1. Record Nr. UNINA9910877368603321 Guidelines for chemical process quantitative risk analysis Titolo New York,: Center for Chemical Process Safety of the American Pubbl/distr/stampa Institute of Chemical Engineers, c2000 **ISBN** 1-282-78332-7 9786612783326 0-470-93542-1 1-59124-456-0 0-470-93541-3 Edizione [2nd ed.] Descrizione fisica 1 online resource (786 p.) 660/.2804 Disciplina Soggetti Chemical plants - Risk assessment Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Guidelines for Chemical Process Quantitative Risk Analysis; Contents: Preface; Preface to the First Edition; Acknowledgments; Acknowledgments to the First Edition; Management Overview; Organization of the Guidelines; Acronyms; 1 Chemical Process Quantitative Risk Analysis; 1.1. CPQRA Definitions; 1.2. Component Techniques of CPQRA; 1.2.1. Complete CPQRA Procedure; 1.2.2. Prioritized CPQRA Procedure; 1.3. Scope of CPQRA Studies; 1.3.1. The Study Cube; 1.3.2. Typical Goals of CPQRAs; 1.4. Management of Incident Lists; 1.4.1. Enumeration; 1.4.2. Selection; 1.4.3. Tracking 1.5. Applications of CPQRA1.5.1. Screening Techniques; 1.5.2. Applications within Existing Facilities; 1.5.3. Applications within New Projects; 1.6. Limitations of CPQRA; 1.7. Current Practices; 1.8. Utilization of CPQRA Results; 1.9. Project Management; 1.9.1. Study Goals; 1.9.2. Study Objectives; 1.9.3. Depth of Study; 1.9.4. Special User Requirements; 1.9.5. Construction of a Project Plan; 1.9.6. Project Execution; 1.10. Maintenance of Study Results; 1.11. References; 2 Consequence Analysis; 2.1. Source Models; 2.1.1. Discharge Rate Models: 2.1.2. Flash and Evaporation

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Chemical process quantitative risk analysis (CPQRA) as applied to the CPI was first fully described in the first edition of this CCPS Guidelines book. This second edition is packed with information reflecting advances in this evolving methodology, and includes worked examples on a CD-ROM. CPQRA is used to identify incident scenarios and evaluate their risk by defining the probability of failure, the various consequences and the potential impact of those consequences. It is an invaluable methodology to evaluate these when qualitative analysis cannot provide adequate understanding and when more