Record Nr. UNINA9910140190403321 Guidelines for enabling conditions and conditional modifiers in layers **Titolo** of protection analysis // Center for Chemical Process Safety, New York, NY Hoboken, New Jersey:,: John Wiley and Sons, Incorporation,, 2014 Pubbl/distr/stampa ©2014 **ISBN** 1-118-77794-8 1-62870-084-X 1-118-77778-6 1-118-77795-6 Descrizione fisica 1 online resource (136 p.) Disciplina 660 Soggetti Chemical processes - Safety measures Chemical processes - Safety standards 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 Cover; Title Page; Copyright Page; Contents; List of Tables; List of Figures: Abbreviations and Acronyms: Glossary: Acknowledgements: Preface; 1 CONTEXT; 1.1 LOPA Overview; 1.2 Pertinent LOPA Variations; 1.3 When to Use Enabling Conditions and Conditional Modifiers; 1.4 Risk Criteria Endpoints: 2 LOPA ENABLING CONDITIONS: 2.1 Definition and Defining Characteristics; 2.2 Interrelationship with Initiating Event; 2.3 Time-At-Risk Enabling Conditions; 2.4 Campaign Enabling Conditions; 2.5 Other Possible Enabling Conditions; 2.6 Documenting and Validating Enabling Conditions 3 LOPA CONDITIONAL MODIFIERS3.1 Definition and Defining Characteristics; 3.2 Probability of a Hazardous Atmosphere; 3.3 Probability of Ignition or Initiation; 3.4 Probability of Explosion; 3.5 Pobability of Personnel Presence; 3.6 Probability of Injury or Fatality; 3.7 Probability of Equipment Damage or Other Financial Impact; 3.8 Documenting, Managing and Validating Conditional Modifiers: 4 APPLICATION TO OTHER METHODS; 4.1 Quantitative Risk Analysis; 4.2 Use of Enabling Conditions and Conditional Modifiers with Scenario

Sommario/riassunto

Identification Methods; 4.3 Barrier Analysis and Diagrams; APPENDICES A Simultaneous Failures and ""Double Jeopardy""B Peak Risk Concepts; C Example Rule Set for LOPA Enabling Conditions; REFERENCES; INDEX

The initial Layer of protection analysis (LOPA) book published in 2001 set the rules and approaches for using LOPA as an intermediate method between purely qualitative hazards evaluation/analysis and more quantitative analysis methods. Basic LOPA provides an order-of-magnitude risk estimate of risk with fairly reproducible results. LOPA results are considered critical in determining safety integrity level for design of safety instrumented systems. This guideline clarifies key concepts and reinforces the limitations and the requirements of LOPA. The main scope of the gu