1. Record Nr. UNINA9910568268403321 Autore Golwalkar Kiran R. **Titolo** Practical guidelines for the chemical industry: operation, processes, and sustainability in modern facilities / / Kiran R. Golwalkar, Rashmi Pubbl/distr/stampa Cham, Switzerland: ,: Springer International Publishing, , [2022] ©2022 **ISBN** 3-030-96581-3 1 online resource (309 pages): illustrations (some color) Descrizione fisica Disciplina 660.015118 Soggetti Chemical engineering - Mathematical models Chemical plants - Design and construction Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia 1. Management Functions2, Hazid, Hazop and Ensuring Safety3. Nota di contenuto Material of Construction 4. Pressure Vessels 5. Piping Design and Pumping Systems6. Cooling and Heating Systems7. Co-generation of Steam, Power, Steam Traps and Heat Exchangers8. Process Control and Instrumentation9. Practical Considerations and Guidelines This book provides practical guidelines to chemical engineers, plant Sommario/riassunto managers, maintenance engineers, and senior managements in modern chemical processing facilities. It provides guidelines to the readers for operational competencies such as hazard identification (HAZID), hazard operability studies (HAZOP), avoiding mistakes in plant facilities to ensure safety, compliance with various statutory rules and regulations: and management of human resources through improved working conditions, provision of safety equipment etc. It further presents technical information on pressure vessels, design of piping and selection of pumping systems, materials for construction and lining of process units operating at high temperature and corrosive conditions, and criteria for selection of different methods for heating of process units. In addition to its application to existing operations, the book

includes information on expansion, diversification, and modernization of facilities and guidelines for revival of old and idle plants. Finally, the authors discuss various safety issues, controlling cost of production,

and sustainability topics such as planning and implementing cogeneration of steam and power, environmental pollution control for chemical plants and safe disposal of hazardous wastes.