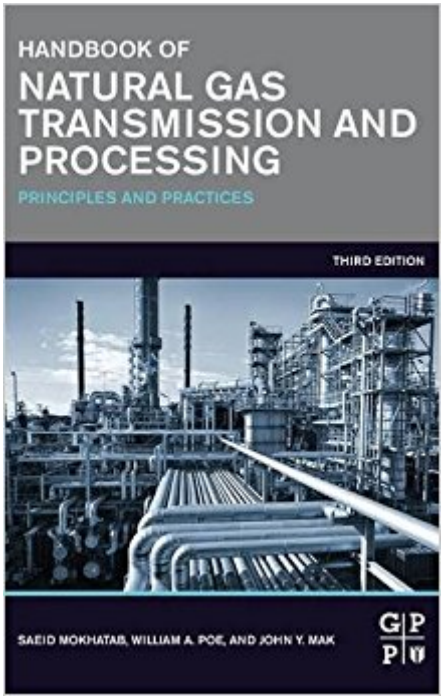
Handbook Of Natural Gas Transmission And Processing, Third Edition: Principles And Practices



Synopsis

Written by an internationally-recognized author team of natural gas industry experts, the third edition ofÂ Handbook of Natural Gas Transmission and Processing is a unique, well-documented, and comprehensive work on the major aspects of natural gas transmission and processing. Two new chapters have been added to the new edition: a chapter on nitrogen rejection to address today's high nitrogen gases and a chapter on gas processing plant operations to assist plant operators with optimizing their plant operations. In addition, overall updates to Handbook of Natural Gas Transmission and Processing provide a fresh look at new technologies and opportunities for solving current gas processing problems on plant design and operation and on greenhouse gases emissions. It also does an excellent job of highlighting the key considerations that must be taken into account for any natural gas project in development. Covers all technical and operational aspects of natural gas transmission and processing in detail.Provides pivotal updates on the latest technologies, applications and solutions.Offers practical advice on design and operation based on engineering principles and operating experiences.

Book Information

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Customer Reviews

"This handbook is a valuable reference that covers all aspects of the natural gas transmission and processing industries. It contains much needed design, operation and optimization information, all in a single source and does an excellent job of highlighting the key considerations for any gas

processing project, as well as providing innovative solutions in NGL recoveries and treating high nitrogen and carbon dioxide content gases in unconventional gas plants. It is a key addition to any gas processing professional’s library.2 --Jason Kraynek, Vice President of Business Transformation & Innovations, Fluor, USA "This well-balanced handbook is the only book of its kind, covering all aspects of natural gas transmission and processing in more details. I believe it will serve as a valuable desk reference for practicing gas engineers and technologists, and as a text for graduate students in the gas engineering curriculum." --Dr. J.C. Kuo, Senior Advisor of Gas Team, Process Engineering, Chevron ETC, USA 2This high quality, comprehensive book gives an accurate picture of where the natural gas transmission and processing industry stands today, and describes some relatively new technologies that could become important in the future. I recommend this book for any professional gas processing engineer and technologist." --David Messersmith, Bechtel Fellow and Manager of LNG Technology and Services Group, Bechtel OG&C, USA "This is the only book that covers all technical and operational aspects of natural gas transmission and processing as well as subject areas missed by other similar references. I recommend that if you work in the natural gas industry, you have this unique reference available." --Dr. Jaleel V. Valappil, Manager - Advanced Simulation/Process, Bechtel OG&C, USA "This is a valuable handbook to both the experienced engineer and the graduate just commencing in natural gas engineering. It provides practical advice for design and operation based on sound engineering principles and established techniques as well as introducing process solutions based on new and emerging technologies." --Adrian Finn, Manager of Process Technology, Costain Natural Resources, UK "This book does an excellent job of describing the fundamental handling of natural gas from the wellhead to the consumer. I particularly found the segment on natural gas liquids recovery most informative. I plan to make this very informative publication available to my employees as an excellent training tool as well." --Randy Johnson, Operations Manager-LNG, Energy Transfer, USA "Must have book for anyone in the Gas Processing Industry. The authors did an incredible job at covering the process dynamics and introducing control theories for optimal operation. Absolutely enjoyed the descriptive nature of the chapters without compromising technical details." --Cesar A. Felizzola, Process Control Engineer, South Region Engineering, DCP Midstream, USA "This comprehensive book provides in-depth coverage of all technical aspects of natural gas transmission and processing, beyond those addressed in other books. This is a â ˆmust additionâ ™ to library of anyone working in the midstream and downstream sectors of natural gas utilization to achieve higher career goals. I commend the authorsâ ™ continuous effort to make it an excellent source book for all professionals, engineers, and scientists in the natural gas industry.2 --Dr. Suresh C. Sharma, ONEOK Chair

Professor and Director of Natural Gas Engineering and Management, University of Oklahoma, USA "This comprehensive book provides a state-of-the-art treatment of the different aspects of natural gas transmission and processing from the fundamental principles to the latest technology developments. It is a unique reference for all professionals involved in natural gas industry and an excellent textbook for graduate programs on the subject." --Dr. Valerio Cozzani, Professor of Chemical Engineering and Director of Post-Graduate Program on Oil & Gas Process Design, University of Bologna, Italy "This unique handbook, written by internationally renowned gas-engineering experts, is a major contribution to the professional and scholarly literature, offering an excellent coverage of key topics in the natural gas supply chain. It addresses the principles, practices, advanced technologies, new issues and challenges related to the natural gas transmission and processing industry, which have not been addressed in depth in any existing books. I recommend it highly, as a reference and textbook." --Dr. Brian F. Towler, Professor and Chair of Petroleum Engineering, University of Queensland, Australia

Saeid Mokhatab is one of the most recognizable names in the natural gas community through his contributions to advancing the technologies in the natural gas processing industry. He has worked in a variety of senior technical and managerial positions with major petroleum companies and has been actively involved in several large-scale gas-field development projects, concentrating on design, precommissioning and startup of processing plants. He has presented numerous invited lectures on gas processing technologies, and has authored or co-authored over 200 technical publications including two well-known Elsevierâ ™s handbooks, which are considered by many as major references to be taken into account for any gas processing/LNG project in development. He founded the worldâ ™s first peer-reviewed journal devoted to the natural gas science and engineering (published by Elsevier, USA); has held editorial positions in many scientific journals/book publishing companies for the hydrocarbon processing industry; and served as a member of technical committees for a number of professional societies and famous gas-processing conferences worldwide. As a result of his outstanding work in the natural gas industry, he has received a number of international awards/medals including the Einstein Gold Medal of Honor and Kapitsa Gold Medal of Honor; and his biography has been listed in highly prestigious directories.William A. â œBill” Poe is a Senior Principal Technical Consultant at the Invensys Division of Schneider Electric, USA. He has over 30 years of international business and industrial experience in design, operations and project management of gas processing plants with a special focus on automation, multivariable predictive control (MPC), advanced process control (APC),

optimization design and implementation, and real-time performance monitoring. Bill started his career at Shell Oil Company, USA, in 1981, working over a decade in natural gas processing plants operations and engineering as well as management of multimillion-dollar projects. In 1993, he joined Continental Controls to lead the process engineering department in support of executing contracts with the Gas Research Institute, USA, where he developed new multivariable control applications in the natural gas industry. After joining GE as part of the Continental Controls acquisition, he became vice president of this division of GE where his responsibilities included direction of product development, projects, technical sales support, and customer service for multivariable control and optimization applications in the natural gas industry. In 2001, Bill joined Invensys Process Systems, USA, where he has developed APC and Optimization Master Plans for international companies such as Saudi Aramco, ADNOC, Statoil, and PDVSA, as well as automation and advanced process control feasibility studies for over 100 natural gas processing plants worldwide. Bill is an Associate Editor of the Journal of Natural Gas Science & Engineering, has authored or co-authored more than 50 technical papers, and made numerous technical presentations at prestigious international conferences. He received the GE Innovators Award in 1999 and attained the Invensys Circle of Excellence in 2011.John Y. Mak is a Senior Fellow and Technical Director at Fluor, USA, and leads the technology and design development for the chemical and energy sectors at Fluor. He has been with Fluor for over 40 years and has been leading domestic and global oil and gas and refinery projects from conceptual design, feasibility study, FEED and detailed engineering to plant startup and operation. John has made significant contributions to the technologies in natural gas treating, NGL recovery, LNG liquefaction and regasification, coal gasification and carbon capture. He is the co-author of the Handbook of Liquefied Natural Gas - 1st edition (2013) published by Elsevier, USA, and has presented over 60 technical papers at the GPA (Gas Processors Association) and LRGCC (Laurance Reid Gas Conditioning Conference), China Coal Forum and other technical conferences. John is the inventor of over 80 patent and patent-pending processes, which have been used in projects at Fluor. His patented technologies have been proven to improve energy efficiency, lower emissions, and reduce cost for many of his clients. Johnâ ™s current focus is on liquid recovery for shale gas projects and treating of the difficult gases, such as the high carbon dioxide and nitrogen content gases for offshore projects.

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