Design Of Municipal Wastewater Treatment Plants Mop 8 Fifth Edition Wef Manual Of Practice 8 Asce Manuals And Reports On Engineering Practice No 76

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Water and Wastewater Engineering: Design Principles and Practice, Second Edition - Mackenzie L. Davis 2019-10-04
Publisher's Note: Products purchased from Third Party sellers are not guaranteed by the publisher for quality, authenticity, or access to any online entitlements included with the product. A Fully Updated, In-Depth Guide to Water and Wastewater Engineering Thoroughly revised to reflect the latest advances, procedures, and regulations, this authoritative resource contains comprehensive coverage of the design and construction of municipal water and wastewater facilities. Written by an environmental engineering expert and seasoned academic, Water and Wastewater Engineering: Design Principles and Practice, Second Edition, offers detailed explanations, practical strategies, and design techniques as well as hands-on safety protocols and operation and maintenance procedures. You will get cutting-edge information on water quality standards, corrosion control, piping materials, energy efficiency, direct and indirect potable reuse, and more. Coverage includes: • The design and construction processes • General water supply design considerations • Intake structures and wells • Chemical handling and storage • Coagulation and flocculation • Lime-soda and ion exchange softening • Reverse osmosis and nanofiltration • Sedimentation • Granular and membrane filtration • Disinfection and fluoridation • Removal of specific constituents • Water plant residuals management, process selection, and integration • Storage and distribution systems • Wastewater collection and treatment design considerations • Sanitary sewer design • Headworks and preliminary treatment • Primary treatment • Wastewater microbiology • Secondary treatment by suspended growth biological processes • Secondary treatment by attached growth and hybrid biological processes • Tertiary treatment • Advanced oxidation processes • Direct and indirect potable reuse
Wastewater Treatment Plants - Syed R. Qasim 2017-11-22
Step-by-step procedures for planning, design, construction and operation: * Health and environment * Process improvements * Stormwater and combined sewer control and treatment * Effluent disposal and reuse * Biosolids disposal and reuse * On-site treatment and disposal of small flows * Wastewater treatment plants should be designed so that the effluent standards and reuse objectives, and biosolids regulations can be met with reasonable ease and cost. The design should incorporate flexibility for dealing with seasonal changes, as well as long-term changes in wastewater quality and future regulations. Good planning and design, therefore, must be based on five major steps: characterization of the raw wastewater quality and effluent, pre-design studies to develop alternative processes and selection of final process train, detailed design of the selected alternative, contraction, and operation and maintenance of the completed facility. Engineers, scientists, and financial analysts must utilize principles from a wide range of disciplines: engineering, chemistry, microbiology, geology, architecture, and economics to carry out the responsibilities of designing a wastewater treatment plant. The objective of this book is to present the technical and nontechnical issues that are most commonly addressed in the planning and design reports for wastewater treatment facilities prepared by practicing engineers. Topics discussed include facility planning, process description, process selection logic, mass balance calculations, design calculations, and concepts for equipment sizing. Theory, design, operation and maintenance, trouble shooting, equipment selection and specifications are integrated for each treatment process. Thus delineation of such information for use by students and practicing engineers is the main purpose of this book.
Design of Municipal Wastewater Treatment Plants MOP 8, Fifth Edition - Water Environment Federation 2012-09-01
Contemporary Municipal Wastewater Treatment Plant Design Methods Fully revised and updated, this three-volume set from the Water Environment Federation and the Environmental and Water Resources Institute of the American Society of Civil Engineers presents the current plant planning, configuration, and design practices of wastewater engineering professionals, augmented by performance information from operating facilities. Design of Municipal Wastewater Treatment Plants, Fifth Edition, includes design approaches that reflect the experience of more than 300 authors and reviewers from around the world. Coverage includes: Integrated facility design Sustainability and energy management Plant hydraulics and pumping Odor control and air emissions Thoroughly updated information on biofilm reactors Biological, physical, and chemical liquid treatment Membrane bioreactors, IFAS, and other integrated biological processes Nutrient removal Sidestream treatment Wastewater disinfection Solids minimization, treatment, and stabilization, including thermal processing Biosolids use and disposal
Wastewater Treatment Plant Design - P. Aarne Vesilind 2003
Edited by Dr. P. Aarne Vesilind and co-published by the Water Environment Federation and IWA Publishing, Wastewater Treatment Plant Design represents a clear step forward in design. It is based on the Water Environment Federation's MOP 8 - Design of Municipal Wastewater Treatment Plants, which is the industry

standard for wastewater treatment design. This new edition incorporates the latest design concepts and is written from both a theoretical and practical basis. Whether you are a consultant or a utility engineer, Wastewater Treatment Plant Design will 'walk' you through the design process using practical examples, and providing you an education rather than training. Real-life design experience and contemporary theory combine to bring you a deeper understanding of the design process.

Safety and Health in Wastewater Systems - 1994

Provides information on building and running a safety program to protect wastewater treatment workers and comply with regulations. Covers safety responsibilities, programs and personal protective equipment, safe work procedures, system controls, specific safety precautions, techniques for pinpointing potential operational and maintenance hazards, safety considerations in design and construction, and emergency rescue practices.

Information Technology in Water and Wastewater Utilities, WEF MOP 33 - Water Environment Federation 2010-08-29

Practical Guidelines for Managing Information Technology in Water and Wastewater Utilities This Water Environment Federation resource presents an overview of the information technology (IT) systems, practices, and applications most relevant to utilities. Information Technology in Water and Wastewater Utilities covers strategic planning, IT program development, project management, infrastructure, security, organizational issues, success factors, and challenges. Six real-world case studies highlight specific technical details and illustrate the concepts presented in this authoritative guide. Information Technology in Waste and Wastewater Utilities covers: Business drivers and IT systems and applications IT planning Developing an IT program for a municipal agency IT capital project management IT systems--processes and practices IT security Organizational aspects of IT Critical success factors and key future challenges for IT in water and wastewater utility projects

Design Manual - 1987

Wastewater Treatment Process Modeling, Second Edition (MOP31) - Water Environment Federation 2013-08-30

Revised edition of: An Introduction to process modeling for designers / prepared by the Design of Municipal Wastewater Treatment Plants (MOP 8) Task Force of the Water Environment Federation. 2009.

Process Design Manual for Suspended Solids Removal - Hazen and Sawyer 1975

Environmental Engineering - Nelson L. Nemerow 2009-01-20

First published in 1958, Salvato's Environmental Engineering has long been the definitive reference for generations of sanitation and environmental engineers. Approaching its fiftieth year of continual publication in a rapidly changing field, the Sixth Edition has been fully reworked and reorganized into three separate, succinct volumes to adapt to a more complex and scientifically demanding field with dozens of specializations. Updated and reviewed by leading experts in the field, this revised edition offers new process and plant design examples and added coverage of such subjects as urban and rural systems. Stressing the practicality and appropriateness of treatment, the Sixth Edition provides realistic solutions for the practicing public health official, water treatment engineer, plant operator, and others in the domestic and industrial waste treatment professions. This volume, Environmental Engineering: Water, Wastewater, Soil and Groundwater Treatment and Remediation, Sixth Edition, covers: Water treatment Water supply Wastewater treatment

Standard Methods for the Examination of Water and Wastewater - 1917

"The signature undertaking of the Twenty-Second Edition was clarifying the QC practices necessary to perform the methods in this manual. Section in Part 1000 were rewritten, and detailed QC sections were added in Parts 2000 through 7000. These changes are a direct and necessary result of the mandate to stay abreast of regulatory requirements and a policy intended to clarify the QC steps considered to be an integral part of each test method. Additional QC steps were added to almost half of the sections."--Pref. p. iv.

Process Science and Engineering for Water and Wastewater Treatment - Simon Judd 2002-03-01

Process Science and Engineering for Water and Wastewater Treatment is the first in a new series of distance learning course books from IWA Publishing. The new series intends to help readers become familiar with design, operation and management of water and wastewater treatment processes without having to refer to any other texts. Process engineering is considered fundamental to successful water and wastewater treatment and Process Science and Engineering for Water and Wastewater Treatment provides the fundamental chemistry, biology and engineering knowledge needed to learn and understand the underlying scientific principles directly relevant to water and wastewater treatment processes. Units in the text covering chemistry and biology include: fundamentals of water chemistry; chemical kinetics and equilibria; colloid and surface chemistry; fundamentals of microbiology; fundamentals biochemistry and microbial kinetics. The concept of Process Engineering is introduced through units on: mass and heat balances; mass and heat transfer; reactor design theory; engineering hydraulics and particle settlement. The text is designed for individual study at the learner?s own pace. Each section contains multiple features to aid learning, including: boxes highlighting key learning points exercises and problems with fully worked solutions to help the reader test their understanding as they progress through the text a comprehensive set of self-assessment questions (with answers) at the end of each unit Designed as a starting point for the other books in the Water and Wastewater Process Technologies Series, this book also provides a self-contained course of learning in the science and engineering for water and wastewater treatment processes. It forms part of the Masters degree programme taught in the School of Water Sciences at Cranfield University, UK.

Guide to Septage Treatment and Disposal - Robert P. G. Bowker 1994-06-01

Presents practical information on the handling, treatment, & disposal of septage in a concise, recommendations-oriented format for use by administrators of waste management programs, septage haulers, & managers or operators of septage handling facilities. Does not provide detailed engineering design information. SeptageÓ is the material removed from a septic tank by pumping. This guide focuses on septage of domestic origin. When properly treated, domestic septage is a resource. A valuable soil conditioner, septage contains nutrients that can reduce reliance on chemical fertilizers for agriculture. Charts & tables.

Financing and Charges for Wastewater Systems WEF MOP 27 - Water Environment Federation 2004-10-03

Provides a general overview of the current practices and procedures that should be considered for financing and establishing rates and charges for wastewater collection and treatment systems. It updates the 1984 Edition of Financing and Charges for Wastewater Systems co-published by (American Society of Civil

Engineers (ASCE) and (American Public Health Association (APHA), then in its second edition, and serves as a guide to wastewater utility managers, municipal officials, engineers, accountants, and rate analysts. Because the material was updated using a more rigorous peer-review process, the publication is now classified as a Manual of Practice. This manual is not intended to provide a simplistic “cook book” or universal approach to cost allocation and rate making. Rather, it is meant to illustrate the various ways of analyzing and allocating the operating and capital costs associated with collecting and treating wastewater and developing rates and charges that reasonably and equitably reflect the cost of service. The manual stresses the complexity of the integrated considerations involved in developing wastewater system cost allocation and rates for services.

Operation of Wastewater Treatment Plants - 2004

Biofilm Reactors WEF MOP 35 - Water Environment Federation 2010-09-29

The latest Methods for Wastewater Treatment Using Fixed-Film Processes This Water Environment Federation resource provides complete coverage of pure fixed-film and hybrid treatment systems, along with details on their design, performance, and operational issues. Biofilm Reactors discusses factors that affect the design of the various processes, appropriate design criteria and procedures, modeling techniques, equipment requirements, and construction methods. Operational issues associated with each type of process are presented, including potential problems and corrective actions. Real-world case studies illustrate the application of the technologies presented in this authoritative volume. Biofilm Reactors covers: Biology of fixed-film processes Trickling filter and combined trickling filter suspended-growth process design and operation Rotating biological contactors Moving-bed biofilm reactors Hybrid processes Biological filters New and emerging fixed-film technologies Clarification Effluent filtration Development and application of models for integrated fixed-film activated sludge, moving-bed reactors, biological aerated filters, and trickling filters

Upgrading and Retrofitting Water and Wastewater Treatment Plants - Water Environment Federation 2005

Upgrading and Retrofitting Water and Wastewater Treatment Plants” is a new MOP from WEF. Upgrading and retrofitting represents the single largest investment that a public or private utility will make. The tricky aspect of upgrading and retrofitting a treatment plant is that during the upgrade process the rest of the plant must operate with no process upsets and meet permitting guidelines. Written by a set of industry experts who have significant years of experience in this area. It is a practical MOP geared to avoid pitfalls, cost overruns, and permit violations.

Wastewater Characteristics, Treatment and Disposal - Marcos Von Sperling 2007-03-30

Wastewater Characteristics, Treatment and Disposal is the first volume in the series Biological Wastewater Treatment, presenting an integrated view of water quality and wastewater treatment. The book covers the following topics: wastewater characteristics (flow and major constituents) impact of wastewater discharges to rivers and lakes overview of wastewater treatment systems complementary items in planning studies. This book, with its clear and practical approach, lays the foundations for the topics that are analysed in more detail in the other books of the series. About the series: The series is based on a highly acclaimed set of best selling textbooks. This international version is comprised by six textbooks giving a state-of-the-art presentation of the science and technology of biological wastewater treatment. Other titles in the series are: Volume 2: Basic Principles of Wastewater Treatment; Volume 3: Waste Stabilisation Ponds; Volume 4: Anaerobic Reactors; Volume 5: Activated Sludge and Aerobic Biofilm Reactors; Volume 6: Sludge Treatment and Disposal

Wastewater Treatment and Reuse, Theory and Design Examples, Volume 1 - Syed R. Qasim 2017-11-22

This book will present the theory involved in wastewater treatment processes, define the important design parameters involved, and provide typical values of these parameters for ready reference; and also provide numerical applications and step-by-step calculation procedures in solved examples. These examples and solutions will help enhance the readers’ comprehension and deeper understanding of the basic concepts, and can be applied by plant designers to design various components of the treatment facilities. It will also examine the actual calculation steps in numerical examples, focusing on practical application of theory and principles into process and water treatment facility design.

Design of Water Resource Recovery Facilities, Manual of Practice No.8, Sixth Edition - Water Environment Federation 2017-09-29

Complete Coverage of the State-of-the-Art in Water Resource Recovery Facility Design Featuring contributions from hundreds of wastewater engineering experts, this fully updated guide presents the latest in facility planning, configuration, and design. Design of Water Resource Recovery Facilities: WEF Manual of Practice No. 8 and ASCE Manuals and Reports on Engineering Practice No. 76, Sixth Edition, covers key technical advances in wastewater treatment, including •Advances with membrane bioreactors applications •Advancements within integrated fixed-film/activated sludge (IFAS) systems and moving-bed biological-reactors systems •Biotrickling filtration for odor control •Increased use of ballasted flocculation •Enhanced nutrient-control systems •Sidestream nutrient removal to reduce the loading on the main nutrient-removal process •Use and application of wireless instrumentation •Use and application of modeling wastewater treatment processes for the basis of design and evaluations of alternatives •Process design and disinfection practices to minimize generation of TTHMs and other organics monitored for potable water quality •Approaches to minimizing biosolids production and advances in biosolids handling, including effective thermal hydrolysis, and improvements in sludge thickening and dewatering technologies •Increasing goals toward energy neutrality and driving net zero •Trend toward resource recovery

Activated Sludge and Aerobic Biofilm Reactors - Marcos Von Sperling 2007-03-30

Activated Sludge and Aerobic Biofilm Reactors is the fifth volume in the series Biological Wastewater Treatment. The first part of the book is devoted to the activated sludge process, covering the removal of organic matter, nitrogen and phosphorus.A detailed analysis of the biological reactor (aeration tank) and the final sedimentation tanks is provided. The second part of the book covers aerobic biofilm reactors, especially trickling filters, rotating biological contractors and submerged aerated biofilters. For all the systems, the book presents in a clear and informative way the main concepts, working principles, expected removal efficiencies, design criteria, design examples, construction aspects and operational guidelines. About the series: The series is based on a highly acclaimed set of best selling textbooks. This international version is comprised by six textbooks giving a state-of-the-art presentation of the science and technology of biological wastewater treatment. Other titles in the series are: Volume 1: Waste Stabilisation Ponds; Volume 2: Basic Principles of Wastewater Treatment; Volume 3: Waste Stabilization Ponds; Volume 4: Anaerobic Reactors;

Volume 6: Sludge Treatment and Disposal

Operation of Municipal Wastewater Treatment Plants: Management and support systems - Water Environment Federation 2008-01-01

"Long-established as an essential reference of the water quality industry, Operation of Municipal Wastewater Treatment Plants, MOP 11 is now available in a revised and expanded Sixth edition. The first major revision in 11 years, this updated classic offers you a complete guide to the operation and maintenance of municipal wastewater treatment plants."--BOOK JACKET.

Basic Principles of Wastewater Treatment - Marcos Von Sperling 2007-03-30

Basic Principles of Wastewater Treatment is the second volume in the series Biological Wastewater Treatment, and focusses on the unit operations and processes associated with biological wastewater treatment. The major topics covered are: microbiology and ecology of wastewater treatment reaction kinetics and reactor hydraulics conversion of organic and inorganic matter sedimentation aeration The theory presented in this volume forms the basis upon which the other books of the series are built. About the series: The series is based on a highly acclaimed set of best selling textbooks. This international version is comprised by six textbooks giving a state-of-the-art presentation of the science and technology of biological wastewater treatment. Other titles in the series are: Volume 1: Wastewater Characteristics, Treatment and Disposal; Volume 3: Waste Stabilisation Ponds; Volume 4: Anaerobic Reactors; Volume 5: Activated Sludge and Aerobic Biofilm Reactors; Volume 6: Sludge Treatment and Disposal

Operation of Water Resource Recovery Facilities, Manual of Practice No. 11, Seventh Edition - Water Environment Federation 2016-10-03

Publisher's Note: Products purchased from Third Party sellers are not guaranteed by the publisher for quality, authenticity, or access to any online entitlements included with the product. The Water Industry’s Cornerstone Text – Reflecting the Latest Trends, Technologies, and Regulations Operation of Water Resource Recovery Facilities (MOP 11), Seventh Edition delivers state-of-the-art coverage of the operation, management, and maintenance of water resource recovery facilities. Now conveniently presented in one volume, this authoritative resource reflects the role of 21st Century facilities in recovering valuable resources, including water, nutrients, and energy, and also features updated information on activated sludge, an aerobic digestion, biological nutrient removal, chemical handling, dissolved air flotation, fixed-film processes, maintenance, odor management, and safety and security. Changes can be found throughout to keep pace with technological advances, including instrumentation and control systems, and reporting requirements. Operation of Water Resource Recovery Facilities (MOP 11), Seventh Edition represents the most complete and up-to-date reference available to the wastewater treatment industry. Coverage includes: • Liquid Treatment • Solids Treatment • Process Performance Improvements • Fundamentals of Management • Permit Compliance and Wastewater Treatment Systems • Industrial Wastes and Pretreatment • Safety • Management Information Systems – Reports and Records • Process Instrumentation • Pumping of Wastewater and Sludge • Chemical Storage, Handling, and Feeding • Utilities • Maintenance • Odor Control • Integrated Process Management • Training • Outsourced Operations Services and Public/Private Partnerships

Aeration Control System Design - Thomas E. Jenkins 2013-10-29

Learn how to design and implement successful aeration control systems Combining principles and practices from mechanical, electrical, and environmental engineering, this book enables you to analyze, design, implement, and test automatic wastewater aeration control systems and processes. It brings together all the process requirements, mechanical equipment operations, instrumentation and controls, carefully explaining how all of these elements are integrated into successful aeration control systems. Moreover, Aeration Control System Design features a host of practical, state-of-the-technology tools for determining energy and process improvements, payback calculations, system commissioning, and more. Author Thomas E. Jenkins has three decades of hands-on experience in every phase of aeration control systems design and implementation. He presents not only the most current theory and technology, but also practical tips and techniques that can only be gained by many years of experience. Inside the book, readers will find: Full integration of process, mechanical, and electrical engineering considerations Alternate control strategies and algorithms that provide better performance than conventional proportional-integral-derivative control Practical considerations and analytical techniques for system evaluation and design New feedforward control technologies and advanced process monitoring systems Throughout the book, example problems based on field experience illustrate how the principles and techniques discussed in the book are used to create successful aeration control systems. Moreover, there are plenty of equations, charts, figures, and diagrams to support readers at every stage of the design and implementation process. In summary, Aeration Control System Design makes it possible for engineering students and professionals to design systems that meet all mechanical, electrical, and process requirements in order to ensure effective and efficient operations.

Industrial Wastewater Management, Treatment, and Disposal, 3e MOP FD-3 - Water Environment Federation 2008-05-15

The Latest Tactics and Strategies for Treating Every Kind of Industrial Wastewater Industrial Wastewater Management offers proven methods to help you treat toxic, concentrated, and polluted water. Complete with illustrations and tables throughout, this authoritative guide contains information on the newest chemicals, significant treatment studies, efficient control processes, and the latest instrumentation. Industrial Wastewater Management equips you with the know-how for treating and removing heavy metals, arsenic, selenium, and mercury by providing detailed descriptions of pretreatment processes, design criteria, and process performance. Features include: Characteristic, sampling, and treatment studies The latest techniques and materials for heavy-metal removal Arsenic, selenium, and mercury treatment processes Applications for biological treatment Instrumentation and control procedures Design and construction procurement services SI as primary units and U.S. as secondary Pros and cons of processes in specific applications Inside: • Discharge and Disposal Regulations • Sampling and Analysis • Wastewater Survey and Characterization • Chemical and Physical Treatability Assessments • Pollution Prevention • Waste Minimization • Flow and Load Equalization • Solids Separation and Handling • Fat, Oil, and Grease Removal • pH Control • Inorganic Constituent Removal • Organic Constituent Treatment • Process Instrumentation and Control • Project Procurement Services

EPA 625/1 - 1974-10

Process Design Manual for Upgrading Existing Wastewater Treatment Plants - Metcalf & Eddy 1974

Sludge Treatment and Disposal - Cleverson Vitorio Andreoli 2007-03-30

Sludge Treatment and Disposal is the sixth volume in the series Biological

Wastewater Treatment. The book covers in a clear and informative way the sludge characteristics, production, treatment (thickening, dewatering, stabilisation, pathogens removal) and disposal (land application for agricultural purposes, sanitary landfills, landfarming and other methods). Environmental and public health issues are also fully described. About the series: The series is based on a highly acclaimed set of best selling textbooks. This international version is comprised by six textbooks giving a state-of-the-art presentation of the science and technology of biological wastewater treatment. Other titles in the series are: Volume 1: Waste Stabilisation Ponds; Volume 2: Basic Principles of Wastewater Treatment; Volume 3: Waste Stabilization Ponds; Volume 4: Anaerobic Reactors; Volume 5: Activated Sludge and Aerobic Biofilm Reactors

Upgrading Existing Wastewater Treatment Plants - United States. Environmental Protection Agency 1977

Wastewater Treatment Plant Design Handbook - Water Environment Federation 2012
"Prepared by the 'Wastewater Treatment Plant Design Handbook' Task Force of the 'Water Environment Federation' --p. [iii]

Urban Runoff Quality Management - Water Environment Federation 1998-01-01
This manual comprises a holistic view of urban runoff quality management. For the beginner, who has little previous exposure to urban runoff quality management, the manual covers the entire subject area from sources and effects of pollutants in urban runoff through the development of management plans and the design of controls. For the municipal stormwater management agency, guidance is given for developing a water quality management plan that takes into account receiving water use objectives, local climatology, regulation, financing and cost, and procedures for comparing various types of controls for suitability and cost effectiveness in a particular area. This guidance will also assist owners of large-scale urban development projects in cost-effectively and aesthetically integrating water quality control to the drainage plan. The manual is also directed to designers who desire a self-contained unit that discusses the design of specific quality controls for urban runoff.

Gravity Sanitary Sewer Design and Construction - Paul Bizier 2007
ASCE MOP 60 & WEF MOP FD-5 provides theoretical and practical guidelines for the design and construction of gravity sanitary sewers.

Wastewater Sludge Processing - Izrail S. Turovskiy 2006-08-08
Reap the benefits of sludge The processing of wastewater sludge for use or disposal has been acontinuing challenge for municipal agencies. Yet, whensludge isproperly processed, the resulting nutrient-richproduct--biosolids--can be a valuable resource for agriculture andother uses. Wastewater Sludge Processing brings together a widebody of knowledge from the field to examine how to effectivelyprocess sludge to reap its benefits, yet protect publichealth. Presented in a format useful as both a reference for practicingenvironmental engineers and a textbook for graduatestudents, thisbook discusses unit operations used for processing sludge and theavailable methods for final disposition of the processed product.Topics discussed include sludge quantities and characteristics,thickening and dewatering, aerobicand anaerobic digestion, alkalinestabilization, composting, thermal drying and incineration, energyconsumption, and the beneficial use of biosolids. COMPREHENSIVE IN ITS COVERAGE, THE TEXT: * Describes new and emerging technologies as well as internationalmethods * Compares different types of sludge processing methods * Explains both municipal and industrial treatmenttechnologies Written by authors with decades of experience in the field,Wastewater Sludge Processing is an invaluable tool for anyoneplanning, designing, and implementing municipal wastewater sludgemanagement projects.

Wastewater Treatment and Reuse Theory and Design Examples, Volume 2: - Syed R. Qasim 2017-11-22
This book will present the theory involved in wastewater treatment processes, define the important design parameters involved, and provide typical values of these parameters for ready reference; and also provide numerical applications and step-by-step calculation procedures in solved examples. These examples and solutions will help enhance the readers’ comprehension and deeper understanding of the basic concepts, and can be applied by plant designers to design various components of the treatment facilities. It will also examine the actual calculation steps in numerical examples, focusing on practical application of theory and principles into process and water treatment facility design.

Design of Municipal Wastewater Treatment Plants - Joint Task Force of the Water Environment Federation and the American Society of Civil Engineers 1992

Biological Wastewater Treatment in Warm Climate Regions - Marcos Von Sperling 2005-09-30
Biological Wastewater Treatment in Warm Climate Regions gives a state-of-the-art presentation of the science and technology of biological wastewater treatment, particularly domestic sewage. The book covers the main treatment processes used worldwide with wastewater treatment in warm climate regions given a particular emphasis where simple, affordable and sustainable solutions are required. This comprehensive book presents in a clear and informative way the basic principles of biological wastewater treatment, including theory and practice, and covering conception, design and operation. In order to ensure the practical and didactic view of the book, 371 illustrations, 322 summary tables and 117 examples are included. All major wastewater treatment processes are covered by full and interlinked design examples which are built up throughout the book, from the determination of wastewater characteristics, the impact of discharge into rivers and lakes, the design of several wastewater treatment processes and the design of sludge treatment and disposal units. The 55 chapters are divided into 7 parts over two volumes: Volume One: (1) Introduction to wastewater characteristics, treatment and disposal; (2) Basic principles of wastewater treatment; (3) Stabilisation ponds; (4) Anaerobic reactors; Volume Two: (5) Activated sludge; (6) Aerobic biofilm reactors; (7) Sludge treatment and disposal. As well as being an ideal textbook, Biological Wastewater Treatment in Warm Climate Regions is an important reference for practising professionals such as engineers, biologists, chemists and environmental scientists, acting in consulting companies, water authorities and environmental agencies.

Guidance Manual for Sewage Treatment Plant Process Audits - Canada. Environment Canada 2006-01-01

Process Design Manual for Nitrogen Control - United States. Environmental Protection Agency. Office of Technology Transfer 1975

Process Design Manual for Sludge Treatment and Disposal - 1979