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Water and Air Effluents Treatment Handbook

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Author: NPCS Board of Consultants & Engineers
Format: paperback
Code: NI217
Pages: 576
Price: Rs 1,275 | US$ 33.95
Publisher: NIIR PROJECT CONSULTANCY SERVICES
Shipping: 5 days

About the Book

Water treatment describes those processes used to make water more acceptable for a desired end use. These can include use as drinking water, industrial processes, medical and many other uses. The goal of all water treatment process is to remove existing contaminants in the water, or reduce the concentration of such contaminants so the water becomes fit for its desired end use. Water quality analytical techniques are considered in the context of EEC directives on the quality of the aquatic control of all effluents is entering it. The principal methods of water analysis are reviewed and it indicated in view of destructive and hazardous role of pollution, it become necessary that the very nature of atmosphere, the various air effluent are present there to save the environment from the harmful effect. Effluent can be treated in different ways, it is classified as; preliminary treatment, primary treatment, secondary treatment and complete final treatment. Waste water obtained from industries is generally much more polluted than the domestic or even commercial waste water. Industrial wastewater cannot be always treated easily by the normal methods of treating domestic waste waters. Depending on the quantum, concentration, toxicity and presence of non biodegradable organics in an industrial wastewater, its treatment may consist of any one or more processes such as equalization, neutralization, physical treatment, chemical treatment and biological treatment. The atmosphere contains hundreds of air pollutants from natural or from anthropogenic sources. All such pollutants are called primary pollutants for example; sulphur oxides, carbon monoxide, nitrogen oxides, lead etc. Secondary pollutants are the chemical substances, which are produced from the chemical reactions of primary pollutants or due to their oxidation etc. A high growth in vehicle population brings in its wake urban air pollution problems unless timely appropriate steps to control vehicle emissions are under taken.
Some of the fundamentals of the book are quality and characteristics of effluents, collection of sewage samples for physical and, chemical testing, disposing of effluents, disposal of wastewaters in lakes and management of lake waters, disposal of sewage effluents on land for irrigation, classification of treatment processes, treatment of industrial effluents, methods of treating industrial wastewaters, strategies for management of industrial wastes, combined industrial municipal wastes, a process for upgrading paper mill effluent by water hyacinth, ventilation for controlling indoor air pollution, the environment and its pollution, disposal of environmentally hazardous radioactive effluents and biomedical wastes, air pollution, its control and monitoring, fuels from waste etc.
This book is an effort to put together the various options available to meet the water and air effluent available for the environmental protection. The book presents a concise but through an overview of state of technology for water and air effluent treatment. The water and air effluent treatments are organized into chapters by broad problem area, treatment of industrial effluent, industrial waste management, etc. This will be helpful to

technocrats, consultants, educators, architects, industry executive, students and others concerned with saving environment problem.

Contents

1. QUALITY AND CHARACTERISTICS OF EFFLUENTS
IMPORTANCE OF STUDY
Decay or Decomposition of Sewage
CHARACTERISTICS OF EFFLUENTS
Physical Characteristics of Sewage and Their Testing
Chemical Characteristics of Sewage and Their Testing
Total Solids, Suspended Solids and Settleable Solids
Population Equivalent
Relative Stability
Collection of Sewage Samples for Physical and,
Chemical Testing
Bacteriological Characteristics and Testing
2 DISPOSING OF EFFLUENTS
DISPOSAL BY DILUTION
Conditions Favouring Disposal By Dilution
Standards of Dilution for Discharge of
Waste waters into Rivers
Dilution in Rivers and Self Purification of Natural Streams
Disposal of Wastewaters in Lakes and
Management of lake Waters
Disposal of Wastewater in Sea Water
DISPOSAL ON LAND
Disposal of sewage effluents on land for for Irrigation
Quality Standards For Wastewater Effluents to be Discharged on Land For Irrigation
'Effluent Irrigation' and 'Sewage Farming'
-Difference Thereof
Methods of Applying Sewage Effluents to Farms
Sewage Sickness
Crops Grown in Sewage Farms and Their Hygienic Aspect
Dilution Method Vs. Land Disposal Method for
Disposal of Sewage
3. TREATMENT OF EFFLUENTS
Classification of Treatment Processes
SCREENING
Types of Screens, Their Designs and Cleaning
Comminutors
Disposal of Screenings
GRIT REMOVAL BASINS
Grit Chambers
Detritus Tanks
Design of Parabolic Grit Chamber provided-with-a-Par shall Flume
TANKS FOR REMOVING OILS AND GREASE
Skimming Tanks
Vacuators
Disposal of Skimmings

Necessity and Use of Skimming Tanks in India
SEDIMENTATION
General Introduction
Principle of Sedimentation
Theory of Sedimentation
Sedimentation Tanks
Disadvantages or Demerits of Coagulation in Sewage Treatment
SECONDARY TREATMENT THROUGH BIOLOGICAL
FILTRATION OF SEWAGE
(Aerobic Attached Culture)
Introduction to Sewage Filtration
Contact Beds for Biological Filtration of Sewage
Intermittent Sand Filters for Biological Filtration of Effluents
Trickling Filters for Biological Filteration of Sewage
Construction and Operation of Trickling Filters
Recirculation of Treated Sewage and its Use in High Rate Trickling Filters
Other Miscellaneous Types of Filter
SECONDARY SEDIMENTATION
Secondary Settling Tanks or Humus Tanks
DIGESTION AND DISPOSAL OF PRIMARY AND
SECONDARY SLUDGE
Sludge and Its Moisture Content
Sludge Digestion Process
Stages in the Sludge Digestion Process
Factors Affecting Sludge Digestion and Their Control
Sludge Digestion Tank or Digestors
(Aerobic Suspended Culture)
Disposal of Digested Sludge
Use of Lagoons for Disposal of Raw Sludge
SECONDARY TREATMENT THROUGH ACTIVATED
SLUDGE PROCESS
(Aerobic Suspended Culture)
Definition of Activated Sludge Process
Various Operations and Units of an Activated Sludge Plant
Bulking and Foaming Sludge in an Activated Sludge Treatment Plant
DESIGN CONSIDERATIONS INVOLVED IN AN
ACTIVATED SLUDGE PLANT
Aeration Tank Loadings
Sludge Volume Index (S.V.I.)
Sludge Recycle and Rate of Return Sludge
Wasting of Excess Sludge (Qw)
Modifications of the Basic Activated Sludge Process
Size and Volume of the Aeration Tank
Qxygen Requirement of the Aeration Tanks
Advantages and disadvantages of an Activated Sludge Plant
Activated Sludge Process Vs Trickling Filter Process and the Choice of One
SECONDARY TREATMENT THROUGH ROTATING
BIOLOGICAL CONTRACTORS
(Aerobic Attached Culture)
Rotating Biological Contractors (RBCS)
AEROBIC STABILISATION UNITS

(Aerobic Suspended Culture)
Oxidation Ponds and Stabilisation Ponds
Oxidation Ditches (Pasveer Type) or Extended Aeration Lagoons
Mechanically Aerated Lagoons
ANAEROBIC STABILISATION UNITS
Anaerobic and Facultative Stabilisation Ponds
Septic Tanks
Advantages
Disadvantages
Imhoff Tanks
Clarigesters
High Rate Anaerobic Systems
CHLORINATION OF SEWAGE
Disinfection of Sewage by Using Chlorine
Design of Inlet Chamber
Design of Screen Chamber
Design of Grit Chamber
Design of Aeration Tanks
Design of Secondary Clarifier
Return Sludge Pump House:
Design of Sludge Drying Beds
4. TREATMENT OF INDUSTRIAL EFFLUENTS
Introduction
Methods of Treating Industrial Wastewaters
Thermal Pollution
5. INDUSTRIAL WASTE WATER EFFLUENTS
Introduction
TERMINOLOGY
TREATMENT LEVELS
Primary Treatment
Secondary Treatment
LAGOONS AND SEPTIC TANKS
TYPES OF INDUSTRIAL WASTES
Strategies for Management of Industrial Wastes
QUANTITY OF INDUSTRIAL WASTES
METALS AND METAL PRODUCTS
Geographical Aspects of the Industry
Technological Control Methods for Steel Mill Wastes
CHEMICAL AND ALLIED PRODUCTS
PAPER AND ALLIED PRODUCTS
PETROLEUM & COAL PRODUCTS
Petroleum
Coal
FOOD & KINDRED PRODUCTS
Cannery Wastes
Frozen Foods
Dairy Products
Meat
Bakery Products
Poultry
MACHINERY AND TRANSPORTATION EQUIPMENT

STONE, CLAY & GLASS PRODUCTS
RUBBER AND PLASTICS
LUMBER AND WOOD PRODUCTS
TEXTILE MILL PRODUCTS
Cotton
Synthetics
COMBINED INDUSTRIAL-MUNICIPAL WASTES
COST ASPECTS OF POLLUTION CONTROL IN THE
PULP AND PAPER INDUSTRY
6. RECLAMATION OF TEXTILES EFFLUENTS
Experimental Procedure
Results and Discussion
Conclusion
7. A PROCESS FOR UPGRADING PAPER MILL
EFFLUENT BY WATER HYACINTH
Experimental Procedure and Results
Phase I
Phase II
Phase III
Discussion
Conclusion
Salient Features
8. DISPOSAL OF SOLID EFFLUENTS AND REUSE
Definition, Classification, Quantity and Composition of Refuse
Collection, Removal and Carriage of Refuse
Disposal of Refuse
Advantages
Disadvantages
Merits
Demerits and Limitations
9. VENTILATION FOR CONTROLLING INDOOR
AIR POLLUTION
Sources, Effects and Status of Indoor Air Pollution
Definition of Ventilation
Effects of Occupancy of a Space
Purpose of Ventilation
Extent of Ventilation Required and Ventilation Standards
Systems of Ventilation
Advantages
Disadvantages
10. THE ENVIRONMENT AND ITS POLLUTION
Biosphere and Environment
Physical and Biological Environment
Ecosystem and Ecological Balance of Nature
Impact of Man on Biosphere
Pollution and Conservation of Environment
Status of Administrative Control on Environment in India
Status of Water Pollution--Monitoring and Control in India
Status of Air Pollution--Monitoring and Control in India.
11. DISPOSAL OF ENVIRONMENTALLY HAZARDOUS RADIOACTIVE EFFLUENTS AND BIOMEDICAL
WASTES

RADIOACTIVE WASTES
Radioactive Elements and Radioactive Radiations
Impacts of Radioactivity on Life and Environment
Disposal of Radioactive Wastes
BIO-MEDICAL WASTES
Biomedical Wastes and Their Hazards on Health and Environment
Legal Laws on Management of Medical Wastes in India
COLLECTION AND TREATMENT OFBIOMEDICAL WASTES
Colour Coding of Biomedical Wastes and Their Collection in Different Coloured Bins or Bags
Collection of Sharp Wastes
Labeling for Identification of Bio-medical Wastes
Storage of Bio-medical Waste
Transportation of Bio-medical Wastes to the Treatment and Disposal Site
Treatment and Disposal of Biomedical Wastes
12. AIR POLLUTION, ITS CONTROL AND
MONITORING
Air Pollutants, Their Effects, and Sources of Origin
Dispersion of Air Pollutants into the Atmosphere
AIR POLLUTION CONTROL
The Natural Self-Cleansing Properties of the Environment
Dilution Method for Controlling Air Pollution from Stationary Sources (Factories)
Controlling Air Pollution from Stationary Sources by Installing Engineering Devices
Controlling Air Pollution from Automobiles
13. VEHICULAR AIR POLLUTION AND MEASURES
FOR ITS CONTROL
Types of Vehicle Emissions
Emission Characteristics of Indian Vehicles
Vehicle Emission Control Technology and Fuel Efficiency
Inspection and Maintenance
Conclusions
14. FUELS FROM WASTE
Characteristics of Wastes for Fuels
Wastes as Fuel
Wood-Waste Combustion Systems
Municipal-Waste Combustion
Other Wastes as Fuel
Conversion Systems Applied to Wastes
Conclusions

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