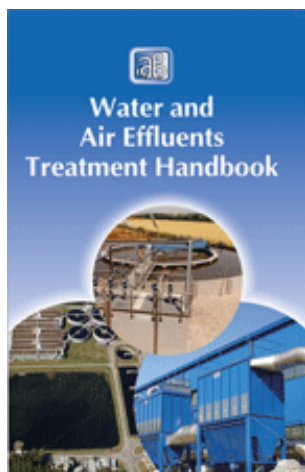


Water and Air Effluents Treatment Handbook



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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 Filtration 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 (Q_w)
 Modifications of the Basic Activated Sludge Process
 Size and Volume of the Aeration Tank
 Oxygen 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 OF BIOMEDICAL 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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