

INTRODUCTION

All over the industrial world legislation with regard to the discharge of industrial waste water is being sharpened. Many industries, which have not previously considered waste water as any problem at all, are now being forced to think along new lines, such as: Which waste water treatment methods are available? Is it feasible to change the quality and/or the quantity of the waste water? Will it be profitable to consider complete or partial recirculation and recovery?

Generally, industrial waste water plants must be tailored. Only in very few cases can standard solutions be applied or are even available at all.

The best solution to waste water problems can only be found by teamwork between the industrial engineer and the industrial waste water specialist. It is the aim of this book to serve as a bridge between the two, since no fruitful dialogue is possible unless all participants have a survey of the problems and the solutions available.

Billions of dollars will be invested in industrial waste water plants in the coming decade, and for many industries the right choice of the waste water treatment methods available might be a matter of life or death. The problem is very complex, as not only the cost of the treatment, but also the increasing cost of water supply and raw materials, the change of manufacturing methods and the discharge criteria influence the final selection of waste water management. Consequently, industries cannot simply give the problem to a waste water specialist, but must with their own engineers be involved in selection of the right method.

The first part of the book is devoted to unit processes of industrial waste water treatment. Here the industrial engineer can find the theory, the characteristics, the design data, the application area and the advantages and disadvantages of the most used treatment methods of to-day.

The second part of the book provides a survey of industrial waste water problems. For the different industries, the basic questions of what is the characteristic of the waste water and which methods have been used to treat the different types of waste water are answered.

It is of course not possible to give all details about the different processes applied to all types of waste water, because of the limited space, but the many references make it feasible to find further details for each present-day case.

The comprehensive index will hopefully make it possible for the book also to be used as a handbook in industrial waste water management.