

C
263-7
CHA

THE OPERATIONAL PARAMETERS OF A WASTE WATER TREATMENT PLANT
FOUR DECADES AFTER CONSTRUCTION.

A PROJECT REPORT PRESENTED BY

O.L.N.G. CHANDRASIRI

To the Board of Study in Environmental Science of the
POSTGRADUATE INSTITUTE OF SCIENCE

*in partial fulfillment of the requirement
for the award of the degree of*

MASTER OF SCIENCE IN ENVIRONMENTAL SCIENCE

of the

UNIVERSITY OF PERADENIYA

SRI LANKA

2007



616270

Abstract

This study was undertaken to make a scientific approach to determine the success of a sewage treatment plant after 38 years of construction and the Trickling filter in the Kegalle Teaching Hospital built in 1968 was taken as the sample of the study.

Waste water samples were collected from Inlet, Digester 1, Digester 2, after trickling outlet, and after chlorination. BOD, COD, suspended solid, pH, nitrates and nitrites were the parameters which were much related to the study.

The analytical results were compared with the CEA standards. Suspended solids and nitrates were reported to be high.

The initial cost, operating cost and the maintaining cost were considerable factors. Trickling filter is a low cost and a successful method for the sewage treatment. In the Kegalle sewage treatment plant, the proper initial plan, the slow expanding of the hospital, good management and employers' dedication have contributed to the successful operation.