



MINIMIZATION OF WASTEWATER
DISPOSAL IN A SUGAR REFINERY

A PROJECT PROPOSAL
Submitted for the Course

SPECIAL PROBLEM

School of Graduate Studies
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CHAPTER I

INTRODUCTION

The refinery consumes big volume of water and releases big volume of wastewater everyday . It solely depends its supply of water from the nearby river. Because of large volume of water needed for its operation, the refinery is experiencing depletion of water source. During rainy season water is abundant, but during dry season water is very scarce. The management had constructed a dike to trap running water in the river. It also tried to tap ground water, but the ground water was salty and unfit for use.

The volume of wastewater disposed daily causes problem. First, there is overloading of wastewater treatment system. Second, the wastewater disposed daily has significant impact especially on the cost of pre-treatment before disposing to the river. Operational costs for pre-treatment such as power and chemicals were not given enough attention. Third, the neighboring farmers are complaining that the overflowed wastewater had affected the soil quality which resulted to lower rice production.

The researcher wishes to solve these problem through good operating practices and housekeeping. It is hoped that this will substantially reduce industrial wastewater, conserve water source, and eventually reduce production cost.

Objectives of the Study

1. To minimize water usage through good operating practices and good housekeeping.
2. To recycle the wastewater at the decolorization station.
3. To evaluate a design of equipment to re-use effluent at wastewater treatment plant.