



De La Salle University – Dasmariñas

Advanced Waste Water Treatment in Steel Industries

For Reuse in different Industrial purposes

SY 2001-2002

57.13

An Undergraduate Thesis

Presented to

The Faculty of the College of Technology

De La Salle University – Dasmariñas

Dasmariñas, Cavite

In Partial Fulfillment

of the Requirements for the degree

Bachelor of Science in Industrial Technology

Karl Lawrence Nadal

Ronnel Cajigal

March 2002

03 APR 2002

AKLATANG EMILIO AGUINALDO ARCHIVES



ABSTRACT

De la Salle University-Dasmarinas

Dasmarinas, Cavite

Advanced Waste Water Treatment in Steel Industries for Reuse in different Purposes

Authors:

Karl Lawrence Nadal

Ronnel Cajigal

FUNDING SOURCE: Guardians COST: PhP 1600

DATE STARTED: December 2001 DATE COMPLETED: February 2002

OBJECTIVES OF THE STUDY:

A. GENERAL:

- a. To implement the usage of advance wastewater treatment in Steel Industries in the province of Cavite

B. SPECIFIC:

- a. to reuse the wastewater in different industrial purposes
- b. to be able to substitute the current method of steel industries in treating the wastewater into advanced wastewater treatment



c. to be able to stop the further damage of our ecosystem
by treating the wastewater before it is disposed

SCOPE AND COVERAGE: the study was limited to the Industrial wastewater
of Steel Industrial Plants situated in Cavite.

METHODOLOGY: The methodology used is the descriptive method of
research.

MAJOR FINDINGS: Industrial plants can utilize its sources of water supply
and natural bodies of water will not be hampered by the
amount of wastewater received from industrial plants by
treating the wastewater for reuse.

CONCLUSIONS: In protecting the environment, prevention is the key to halt
the further damage to the environment

RECOMMENDATIONS: The way to counter the effect of industrial
wastewater is to stop it from being released to the natural
bodies of water, this can be done by installing wastewater
treatment facilities to pre-treat the industrial wastewater of
the different steel industries in Cavite, either for disposal or
reuse.



TABLE OF CONTENTS

	Page
TITLE PAGE	1
ABSTRACT	2
APPROVAL SHEET	4
ACKNOWLEDGEMENT	5
TABLE OF CONTENTS	6
LIST OF TABLES	8
LIST OF FIGURES	9
CHAPTER	
1. THE PROBLEM AND ITS BACKGROUND	
Introduction	11
Conceptual Framework	13
Statement of the Problem	14
Assumptions	14
Scope and Delimitation of the Study	15
Significance of the Study	16
Definition of Terms	17
2. REVIEW OF RELATED LITERATURE	
Conceptual Literature	19
Research Literature	20



Composition of Wastewater	22
3. METHODOLOGY	
Research Method Design	26
Respondents of the study	26
Research Instrument	26
Other sources of Data	27
4. PRESENTATION, ANALYSIS AND INTERPRETATION	
Comparison	29
Wastewater Treatment Procedure	31
Specific Question No.1	38
Specific Question No.2	38
Specific Question No.3	39
Specific Question No.4	39
5. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	
Summary	41
Conclusion	41
Recommendation	42
REFERENCES	43
APPENDICES	
A. The Instrument	45
B. Curriculum Vitae	47



LIST OF TABLE

Table no. 1 - Typical domestic wastewater breakdown

Page

23





LIST OF FIGURE

	Page
Figure no. 1 - Cause of water pollution	13
Figure no. 2 - Cause of shortages of water supply	13
Figure no. 3 - Wastewater Treatment Process	32

