

HIGHER TECHNICAL INSTITUTE

CIVIL ENGINEERING DEPARTMENT

DIPLOMA PROJECT

AIR POLLUTION CONTROL

C 937

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AIR POLLUTION CONTROL

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Project Report

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Diploma Project Number: C/937

Title : Air Pollution Control

Objectives:

- To define all major air pollutants, their sources and the effects on the environment.
- To state air pollution control measures.
- To state air pollution control equipment, their efficiency, and their design criteria.
- To show the application of air pollution equipment to an industrial establishment.

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Mr. C. Mallikides, Environmental Pollution Inspector and Factory Inspector, and Mr. S. Kleantous, Environmental Pollution Inspector A, in the Ministry of Labour and Social Insurance who despite the fact that they work in high spots in the government and with very busy schedule (Environmental Research and Harmonization with the E.U. Environmental Law) spent a lot of their valuable time to answer all of our questions regarding the creation of this project and providing us with very important charts who without their use we wouldn't be able, firstly to give a practical meaning to theory and secondly to have a colorful look on this project.

We also wish to thank Mr. Efstathio C. Efstathiou for his continuous help and support throughout by letting us use his premises and electronic equipment (sometimes until early in the morning).

CONTENTS

- **ACKNOWLEDGEMENTS**

- **INTRODUCTION**

- **CHAPTER ONE: DEFINITION OF ALL MAJOR POLLUTANTS, THEIR SOURCES AND THE EFFECTS ON THE ENVIRONMENT**
 - 1.1. WHAT IS AIR POLLUTION?
 - 1.2.1. TYPES AND SOURCES OF GASEOUS AIR POLLUTANTS
 - 1.2.2. PARTICULATE MATTER POLLUTANTS
 - 1.2.3. HEALTH EFFECTS OF AIR POLLUTANTS

- **CHAPTER TWO: AIR POLLUTION CONTROL MEASURES**
 - 2.1. POLLUTION PREVENTION
 - 2.1.1. POLLUTION PREVENTION BENEFITS
 - 2.2. OPTIONS FOR POLLUTION PREVENTION

- **CHAPTER THREE: AIR POLLUTION CONTROL EQUIPMENT, THEIR EFFICIENCY, AND THEIR DESIGN CRITERIA**
 - 3.1. AIR POLLUTION CONTROL
 - 3.1.1. SOURCE CORRECTION
 - 3.1.2. COLLECTION OF POLLUTANTS
 - 3.1.3. COOLING
 - 3.1.4. TREATMENT
 - 3.2. METHODS OF AIR PURIFICATION

3.3. AIR POLLUTION CONTROL EQUIPMENT

3.3.1. CYCLONES

3.3.2. FABRIC FILTERS

3.3.3. WET COLLECTORS

3.3.4. ELECTROSTATIC PRECIPITATORS

3.4. COMPARISON OF PARTICULATE CONTROL DEVICES

- **CHAPTER FOUR: APPLICATION OF AIR POLLUTION CONTROL EQUIPMENT TO AN INDUSTRIAL ESTABLISHMENT**

4.1. AIRPOLLUTION DUE TO INDUSTRY IN GENERAL

4.1.1. INDUSTRY AND THE EXTERNAL ENVIRONMENT

4.2. AIR POLLUTION

4.3. MEASUREMENTS AND ANALYSES EMISSION MEASUREMENTS

4.4.2. SOLUTIONS OF THE PROBLEM

4.5. ODOUR INVESTIGATION

4.5.1. FIELD OF APPLICATION

4.5.2. OBSERVATION AND APPLICATION OF DATA

4.6. BIOMONITORING

4.6.1. AIR POLLUTION AND BIOMONITORING

4.7. CHOICE OF AIR PURIFICATION EQUIPMENT

4.7.1. EFFICIENCY OF PURIFICATION

4.7.2. SECONDARY TYPES OF POLLUTION

4.8. RESOURCE RECOVERY

4.9. THE ULTIMATE FATE OF POLLUTANTS

- **CHARTS**

- **CONCLUSIONS**

INTRODUCTION

Since the creation of the world, the environment suffered from different kinds of pollution. Names were given to these kinds of pollution and now the most known are: the noise pollution (were the noise exceeds the tolerable for the ear noise), air pollution (were the air contains particles and substances which can be harmful for people, plants, animals and the world in general), the water pollution (were the water is contaminated by pesticides and by toxics, that are spread into the air, when it' s raining.

Someone can avoid noise pollution by staying away from blustery areas and can avoid water pollution when he is very careful in what water he drinks and uses for his needs. But how can someone protect himself from air pollution?

There are some things that can be done to reduce air pollution and this will be the scope of this project. Though one thing is sure! Living creatures cannot stop breathing.

Someone may argue that there is no way to terminate the existence of pollution in the air, and this argument finds the most critics in agreement. This is due to the fact that air pollution exists even to the most virgin forests, where people have not yet gone, due to fires and volcanic eruptions, all over the world in all continents. This project will deal mainly with the two most industrially developed continents, which are, Europe and the U.S.A.

This project will deal with the kinds of pollutants, the effects, of these pollutants, on humans (physically and mentally), on animals and the environment in general. It will also refer to the devices which are normally used in order to determine the amount of these pollutants in the atmosphere

and the reason these measurements are taken. Further more it will refer to the equipment, which is used in order to minimize the air pollution that results from industry. Lastly an attempt is going to be made to show how people can contribute to this achievement in simple ways.