

UNIVERSITI TEKNOLOGI MARA

**A STUDY ON THE EFFECTIVENESS
OF NOISE CONTROL MEASURES
FOR MACHINERIES AT SEMENYIH
2 WATER TREATMENT PLANT**

NIK NURUL AMEERA BINTI NIK AZRIM

Dissertation submitted in partial fulfillment
of the requirements for the degree of
Diploma in Mechanical Engineering

College of Engineering

December 2023

ABSTRACT

This study focuses on evaluating the effectiveness of noise control measures machineries at the Semenyih 2 Water Treatment Plant. Excessive noise generated by industrial machinery can have adverse effects on worker health and well-being, as well as impact the surrounding community. The primary objective is to assess the existing noise control measures implemented at the plant and provide recommendations for improvement. Overall, it provides valuable insights into noise management practices at the Semenyih 2 Water Treatment Plant and contributes to the development of effective noise control strategies in similar industrial settings. By addressing noise pollution, the study supports the well-being of workers, regulatory compliance, and fosters a harmonious relationship between the plant and the surroundings.

ACKNOWLEDGEMENT

Firstly, I wish to thank God for giving me the opportunity to embark on my diploma and for completing this long and challenging journey successfully. My gratitude and thanks go to my supervisor, Ts. Mohamad Zamin Mohamad Jusoh.

Finally, this dissertation is dedicated to my father and mother for the vision and determination to educate me. This piece of victory is dedicated to both of you. Alhamdulillah's.

TABLE OF CONTENTS

	Page
CONFIRMATION BY SUPERVISOR	ii
AUTHOR'S DECLARATION	iii
ABSTRACT	iv
ACKNOWLEDGEMENT	v
TABLE OF CONTENTS	vi
LIST OF TABLES	viii
LIST OF FIGURES	ix
LIST OF ABBREVIATIONS	xi
CHAPTER ONE : INTRODUCTION	1
1.1 Background of Study	1
1.2 Problem Statement	2
1.3 Objectives	5
1.4 Scope of Work	5
1.5 Significance of Study	6
CHAPTER TWO : LITERATURE REVIEW	8
2.1 Previous Studies	8
2.2 Overview of Sound and Noise	11
2.3 Measure of Noise	12
2.4 Control of Excessive Noise	17
CHAPTER THREE : METHODOLOGY	19
3.1 Introduction	19
3.2 Procedures	19
3.3 Reaching Out To The Semenyih 2 Water Treatment Plant	20
3.4 Documents and Appointment Given.	22
3.5 Flow Chart	24
3.6 Gantt Chart	25

CHAPTER FOUR : RESULTS AND DISCUSSION	26
4.1 Introduction	26
4.2 Data Analysis	26
4.3 Graph	27
4.4 Area Mapping	28
CHAPTER FIVE : CONCLUSION AND RECOMMENDATIONS	33
5.1 Conclusions	33
5.2 Recommendations	33
REFERENCES	34
APPENDICES	36