DEPARTMENT OF BUILDING SURVEYING FACULTY OF ARCHITECTURE, PLANNING AND SURVEYING UNIVERSITY TECHNOLOGY OF MARA SERI ISKANDAR PERAK

A STUDY EFFECT OF CEMENT TO CEMENT FACTORY WORKERS

MUHAMAD NAZREEN BIN NAZLE ASMADE (2013395939)

Academic project submitted in partial fulfilment of the requirments for the award of the degree of Bachelor Building Surveying (Hons).

Faculty Of Architecture, Planning and Surveying
University Technology MARA

JANUARY 2016

SUPERVISOR DECLARATION

	Acad	emic	Pro	ject	Tittle
--	------	------	-----	------	--------

A STUDY EFFECT OF CEMENT TO CEMENT FACTORY WORKERS

I hereby that satisfied read this report and from my opinion it has fulfilled all the requirements and it qualified for the purpose of conferment of Bachelor of Building surveying

Signatue :

Supervisor Name: MADAM NUR FADILAH BINTI BAHARDIN

Date : JANUARY 2016

Abstract

Malaysia is develop country .The uses cement in the construction industry is very high. However cement effects to humans is very terrible. Various methods and measures were taken to avoid the effects of cement to the people especially workers in cement factories. Examples of cement effects to humans is bloody cough, respiratory problems, itchy eyes and more. The study found that workers who handle a lot of cement especially affected even if they have to wear personal protection equipment.

ACKNOWLEDGEMENT

Thanks to Allah the All Mighty, for giving me a chance in preparing and completing this thesis. Actually, there are lots of people who are behind this success. They have contributed towards my understanding and development of the idea and thought. In this opportunity, I want to express my sincere appreciation and thanks to my family, lectures, students, fellow friends, and also my respondents.

With all limitless encouragement, support and love, my family never give up on me and I would like to giving them credit for everything that they have given not only during my process of research and during my degree, also for every moments that I have spent my life with.

Without discrimination, an honoured and respect giving to my supervisor, Madam Nur Fadhilah Bt Bahardin for her unequalled guidance, encouragement, advice, motivation, and friendship which she already give it to me. Without her continued support and interest, this thesis would not have been the same as presented here.

My fellow friends, Anas, La, Bos, Kak Sa, Ali, Ipin, Is, Yo and wan should been recognized for their support and helping me to complete a process in this research which support me all the way during our degree together and also being my accompany from night till the early in the morning to ensure this thesis is perfectly completed.

Finally, a thousand of thanks I streak it to all who have, in one way or other, directly or indirectly, they deserve my greatest gratitude without prejudice

TABLE OF CONTENTS

TITLE	PAGE
AUTHOR DECLARATION	i
ACKNOWLEDGEMENT	ii
TABLE OF CONTENTS	iii
CHAPTER 1: INTRODUCTION	
1.0: Introduction effect of cement	1
2.0: Aim and Objective	2
3.0: Problem statement	3
4.0: Limitation and delimitation	4
CHAPTER 2: LITERTURE REVIEW	
2.1: Introduction of cement	6
2.2: Exposure limit for cement workers	
at cement factory	8-9
2.3: Effect of exposure to cement dust to	
Factory worker	
2.3.1: Effects of single exposure to	
cement dust	10
2.3.2: Chronic cough	10
2.3.2: Gastro intestinal	11
2.4 Production process of cement	
I: Quarrying, Dredging and digging	12
II: Grinding	12
III: Blending	12
IV: Fine grinding	12
V: Burning	13
VI: Finish Grinding	13
VII: Packaging/ Shipping	14
2.5 Flow chart of manufacturing process	
2.5.1: Typical manufacturing process	15
2.5.2: Newer manufacturing process	16
2.6: Safety precaution at cement factory	
2 6 1: Material hazards17	