

**A COMPARATIVE STUDY ON
DOMESTIC WASTE DISPOSAL
BY LANDFILLING AND INCINERATION
IN MALAYSIA**



**A Report Submitted to the Faculty of Civil Engineering
in Partial Fulfilment of the Requirements for the award
of a Degree in Bachelor of Engineering (Honours) (Civil)**

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ABSTRACT

Households, industries, institutions and commercial centres generate garbage. This solid waste is generated in large volumes in high population centres where demand for energy and resources is greatest. With increasing population, living standards, urbanization, industrialization and demand for wider varieties of consumer goods, solid waste volume is mounting.

Solid waste management varies from country to country. The situation must be assessed from various angles; safety, environmental consequences, handling and economic factors must be taken into consideration.

The dangers from improper site whether landfilling or incinerator which fall into the categories such as fires; gas production leading to possible fires, asphyxiation and explosions in buildings; leachate production leading to possible pollution of aquifers; rat and insect infestation, leading to spread of disease; and scavenging leading to a probability of injuries.

So far, the focus of solid waste management programmes in Malaysia are landfilling and incineration, where between these two methods, landfilling is more widely used. In order

CHAPTER 1

INTRODUCTION

1.1 General

Households, industries, institutions and commercial centres generate garbage. This solid waste is generated in large volumes in high population centres where demand for energy and resources is greatest. With increasing population, living standards, urbanisation, industrialisation and demand for wider varieties of consumer goods, solid waste volume is mounting. Its management is increasingly expensive and imposing environmental burdens to society as a whole. In Malaysia, there are two popular methods used to settle the solid waste problem which are landfilling and incineration.

1.1.1 Landfilling

Landfill normally refers to the engineered deposit of wastes onto and into land, with deposit usually taking place predominantly below the ground surface in voids, which have often been formed by mineral extraction or quarrying. Landfill is reserved for solid or semi-solid residues of the treatment processes (dewatered sludges from the physicochemical treatment processes, ash from incineration), inert material such as