

CHAPTER 1

INTRODUCTION



This chapter covering of background of research and rational behind the decision to conduct this research. In addition, objective and scope of the research, research procedures, and expect benefits are explained in the following topics.

1.1 Background of the Research

Nowadays, there is high competition in the business world. Especially, when global economic crisis occurs, people saving more and trying to reduce their expenditures; as a result, many businesses will have lower profits. For this reason, before investment in any projects, every firm should be extremely careful in decision making because wrong decision can make the business fail.

In general, the management team should analyze in several factors such as marketing, manufacturing/engineering, economic, financial and so on. For this research, contemplate in project feasibility study for investment in infectious waste incinerating service business by using controlled Air Incinerator.

According to www.ns.sripruetta.ac.th/snet6/evi3/tidchea/ridn.htm, there are a total of 20,000 hospitals in Thailand and total number of patients from both government hospitals and private hospitals is around 130,000 persons; therefore, there are infective wastes of about 130 tons per day.

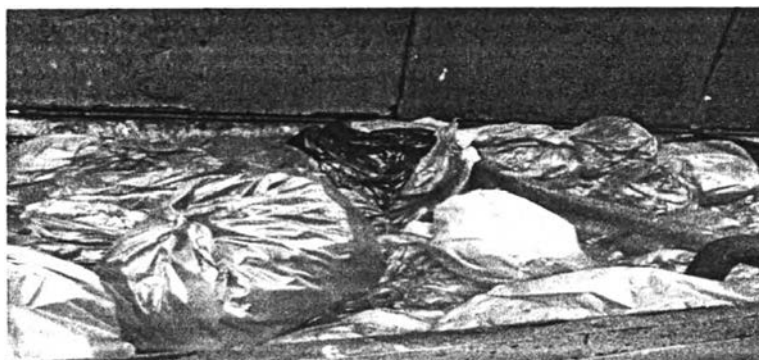


Figure 1.1: Infectious wastes

Nowadays, there are numerous of infective wastes; however, numbers of infectious waste incinerators in Thailand are not sufficient. This following table shows number of infective waste incinerator in Thailand.

Table 1.1: Number of Infectious Waste Incinerator.

Units	Number of	
	Health Service Units	Incinerators
Hospitals (Public and Private)	799	628
Health Department	14	13
Department of Medical Service	23	18
Department of Infectious Disease Control	5	5
Department of Mental Health	11	10
Total	852	674

Source: Environment Institute of Thailand(1996)

Table 1.1 shows that 173 divisions have no infective waste incinerator. Furthermore, most of current infectious waste incinerators discharge fumes from burning, which has been commented by neighboring people. However, cost of Controlled Air Incinerator is expensive so many hospitals will not invest for this task. In contrast, they usually dispose of waste by sending their infective wastes to private incinerating service businesses. Consequently, project feasibility study in investment in infectious waste incinerating service business by using controlled Air Incinerator is required.

In this research, a medium company is selected as a case study. The name of the company kept confidential for business reasons and assumes the name as “ABC Company”. This research is predominately concerned with marketing, economic, manufacturing/engineering, management and financial analysis.

1.2 Statement of the Problem

ABC Company is the first company in Thailand that designs Controlled Air Incinerators for incinerating infective waste. This incinerator can burn any infectious wastes with high temperature. Besides the company serves to destroy infectious waste from several hospitals. However, now this company is face with 2 major following problems.

- 1) The company set infectious waste incinerating plant at Sumutprakan Hospital; consequently, many infectious wastes from other hospitals are incinerated here. Anyway, if the Sumutprakan Hospital management teams are changed; on that account, the hospital's infection waste policy will also be changed. For this reason, the infective waste incinerating plant of ABC Company may be relocated within 3 years.
- 2) Rayong Hospital, Chanthaburi Hospital, Chonburi Hospital, and Trat Hospital require incinerating infectious waste with ABC Company.

Due to these reasons, it is essential for the company to expand its infective waste incinerating plant immediately. Accordingly, project feasibility study in investment in infectious waste incinerating service business by using controlled Air Incinerator will support the company for making accurate decisions.

1.3 Objective of the Research

The objective of research is to study project feasibility study for investment in infectious waste incinerating service business by using controlled Air Incinerator.

1.4 Scope of the Research

Project feasibility study of investment in infectious waste incinerating service business by using controlled Air Incinerator is predominately concerned with marketing, manufacturing/engineering, management, environment, and financial analysis.

1.5 Research Procedures

- 1) Literature Survey
 - Academic Research and journals
 - Environment journal, newspapers
 - Government publications
 - Colleges and universities
 - Libraries
- 2) Marketing Analysis
 - External Analysis
 - Internal Analysis
- 3) Engineering Analysis
 - Manufacturing Analysis
 - Plant Layout Analysis
 - Raw Material Analysis
 - Facility Analysis
- 4) Management Analysis
- 5) Financial Analysis
- 6) Environment Analysis
- 7) Evaluation
- 8) Conclusion and recommendation
- 9) Thesis write up and submission

1.6 Expected Benefits

There are two expected benefits, which are related to each other. They are shown as follows.

- 1) To obtain accurate decision-making for investment in infectious waste incinerating service business.
- 2) Provide the parameter in implementing the projects.