

QUALITY AND QUANTITY OF EMISSION FROM THERMAL POWER HOUSES

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In the Name of ALLah, the Creator and the Owner of this universe. Peaises are all for Him, the Almighty. Nothing can be accomplished witout His consent.

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ABSTRACT

Electricity has been an important energy source to people in this country. To have this energy, several ways of generation has been invented. Among them is by burning fossil fuel. This, however, gives us two different thing, energy and pollution. While energy guarenteed the continuation of human existence, pollution may reduced the span of human entity. The purpose of this project is to disclose the condition of pollution caused by power station. Gaussian model has been employed to estimate the concentration of pollutants emitted by the stack of the power utilities.

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1.0 Introduction

It is true that as a huge fuel consumer, power stations burnt a lot of fuel. Therefore large amount of pollutants are expected to be released from the stack of power houses.

The fossil fuel is one of the raw material in generating electricity. The burning of fossil fuel gives out some 'unwanted' product - pollutants. Pollutants of interest in this project are oxides of nitrogen, oxides of sulphur, carbon monoxide and particulate matter. They , in fact, are the most wide spread pollutants. The volume of pollutants released by several sectors, including power sector, is described. This will be followed by calculation of percentages of pollutants. This is to see which sector produces larger portion of the total emission.

A theoretical background of calculation of concentration is then given. However, before that a *short note on air quality standard is mentioned to give an idea on air quality.*

Calculations are then made to determine the concentration of pollutants of the emission from the stack of power stations. Comparison is then made with the measured data available from different sources. The work presented in this thesis is motivated to understand at devise pollution constraint for use in economic power dispatch in electrical energy system.