3.1 FACTORS AFFECTING SELECTION OF CONTROL EQUIPMENT

There are a number of factors to be considered prior to selecting a particular in air pollution control equipment. In general, they can group into three categories.

- Environmental
- Engineering
- Economic

1. Environmental

Equipment location, availability space, ambient conditions, availability of adequate utilities and ancillary system facilities.

- Maximum available emissions (air pollution regulation)
- Contribution of air pollution control system to waste water and solid waste.
- Contribution of air pollution control system to plant noise levels.

2. Engineering

- Design and performance characteristics of the particular control system (size and weight, pressure drop , reliability and dependability, temperature limitation, maintenance requirement)
- Gas stream characteristics (volume, flow rate, temperature, pressure, humidity, composition, viscosity, density, reactivity, corrosiveness and toxicity)
- Contaminant characteristics (physical and chemical properties, concentration, particulate shape and size distribution in the case of particulates)

3. Economic

- Capital cost (equipment, installation, engineering, etc.)
- Operating cost (utilities, maintenance, etc.)
- Expected equipment lifetime and salvage value.