

8. FOUNDATION OF TOWERS

8.1 Introduction

Foundation of any structure plays an important role in safety and satisfactory performance of the structure as it transmits the loads from structure to earth. Without having a sound and safe foundation, structure cannot perform the functions for which it has been designed. Therefore, the design of foundation needs to be given top priority.

Past records show that failures of tower foundations are responsible for collapse of towers. These failures have usually been associated with certain deficiencies either in the design or classification or construction of foundations. Many times, foundation cast are over safe because of inappropriate classification, resulting in wastage of resources. From engineering point of view, the task of design and selection of most suitable type of tower foundation is challenging because of the variety of soil conditions at the site of construction of tower. The foundations in various types of soils have to be designed to suit the soil conditions of particular type.

As the concept of safe value for properties of soil has been dispensed with in the design of foundation, limit value of properties of soil should be obtained from soil investigation report.