

Abstract

The present thesis deals with the analysis and design aspects of Reinforced Concrete Chimneys. The thesis reviews the various load effects that are incident upon tall free standing structures such as a chimney and the methods for estimation of the same using various codal provisions. Various loads are incident upon a chimney such as, wind loads, seismic loads and temperature loads etc. The codal provisions for the evaluation of the same have been studied and applied. Comparison has also been done between the values obtained of these load effects using the procedures outlined by various codes.

The design strength of the chimney cross sections has also been estimated. Design charts have also been prepared that can be used to ease the process of the design of the chimney cross sections and the usage exemplified.

A typical chimney of 250m has been analyzed and designed using the processes already outlined. Drawings have been prepared for the chimney. The foundation for the chimney too has been designed.