

CORROSION INDUCED DETERIORATION IN REINFORCED CONCRETE HIGH RISE STRUCTURES IN MUMBAI

SYNOPSIS

A Case study dealing with conventionally reinforced concrete high-rise structures is presented. The case study includes the results of a detailed concrete and corrosion condition evaluation and rehabilitation recommendations made. The study also evaluates the factors affecting corrosion and comparison of data collected from other similar studies. Some of the known factors that influence corrosion have been evaluated. Increase in corrosion potential with height up to a certain limit and the increased susceptibility of corrosion on the exterior façade have been studied. Also the effect of wind direction has been evaluated. The data collected for all this comparison is based on the study of corrosion potential by electrical half-cell survey using a standard copper – copper sulphate half-cell.

Cover meter study and carbonation study has also been conducted. However influence of these factors has not been presented in this paper.