Abstract

Due to heavy economic demands for industrial goods and services, special considerations are often incorporated into the design and construction of industrial buildings to cope with the intense usage. However, in most cases, these provisions are barely minimal, resulting in early deterioration. In concrete building, this may readily transcend into problems of cracking within the building’s structure and fabric.

No matter how well constructed these buildings may be, defects will inevitably materialize. A proper appraisal procedure to identify and accurately diagnose the origins and causes of cracks is necessary. In conjunction, repair needs to be closely interwoven into the needs and constraints of the building. The appropriate repair method that is highly effective and efficient, yet within cost limitations, must be employed after detailed assessment of the building defect, to restore the damaged areas and prevent similar defects from reoccurring.

The intention of this dissertation is to provide an extensive overview of the interplay between the causes of cracks that besiege industrial buildings; the application of detailed appraisal assessment; and the appropriate selection of repair techniques used in the remedial works for these industrial buildings. It is important to be cognizant of the positive results of such repair efforts to allow for sustained serviceability performance throughout the functional life spans of concrete industrial buildings.