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Sommario/riassunto	Preface : Concrete structures in severe environments include a variety of structures in various types of environment. Although several deteriorating processes such as alkali-aggregate reactions, freezing and thawing, and chemical attack still represent severe challenges and problems to many important concrete structures, rapid development in concrete technology in recent years has made it easier to control such deteriorating processes. For concrete structures in severe environments, the applied concrete is normally so dense that concrete

carbonation does not represent any practical problem. For concrete structures in chloride-containing environments, however, chloride ingress and premature corrosion of embedded steel still appear to be a most difficult and severe challenge to the durability and performance of many important concrete infrastructures. In recent years, there has also been a rapid increase in the use of de-icing salt and rapid development of concrete structures in marine environments. In order to obtain an increased and better control of chloride ingress and corrosion of embedded steel, improved procedures and specifications for proper combinations of concrete quality and concrete cover are very important. Upon completion of new concrete structures, however, the achieved construction quality typically shows high scatter and variability, and in severe environments, any weaknesses and deficiencies will soon be revealed, whatever durability specifications and materials have been applied. Therefore, improved procedures for quality control and quality assurance during concrete construction are also very important--

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