Life-365 Version 2.0 Released - Well Regarded Computer Model for Predicting Service Life of Concrete Structures Receives Major Upgrade

Life-365 Service Life Prediction Model™ is a standardized software model developed by a consortium of industry associations established under the American Concrete Institute’s (ACI) Strategic Development Council in 1998. In use for over 7-years by the civil engineering community, Life-365 is used to evaluate the service life of steel reinforced concrete structures by comparing different strategies and techniques for increasing the service life of the structure.

“This is a software tool that engineers have been using for some time now and have come to trust because of its’ open design that uses standardized industry-prediction methods, Life-365 is a valuable resource that has been used regularly to design better concrete structures with longer service life,” stated Tony Kojundic, of the Silica Fume Association, and member of the technical consortium developing this software.

The new version of Life-365 has a completely redesigned user interface, a new probabilistic approach and an improved life-cycle cost functionality. “The addition of a probabilistic approach combined with the existing industry accepted time-to-corrosion engine of Life-365 allows engineers and owners to make decisions about design alternatives with more confidence and this should result in more reliable designs,” commented one of the developers of Life-365, Evan Bentz at the University of Toronto.

Corrosion-induced damage can often be mitigated through numerous strategies including; low-permeability (high-performance) concretes, corrosion inhibiting admixtures, epoxy coated steel reinforcement, corrosion-resistant steel, application of waterproofing membranes or sealants or any combinations of the these methods and materials. “Each of these strategies has technical
merits and costs, and the challenge is to select the proper combination of protection methods, at an acceptable cost, to achieve the desired result. Simply stated, Life-365 is a tool that will weigh the increased initial costs of specific corrosion protection systems against the potential extension of service life”, commented Arnie Rosenberg, Executive Director of the Concrete Corrosion Inhibitors Association.

The consortium that supported the newest development of Life-365 includes the Cement Slag Association (CSA), the Concrete Corrosion Inhibitors Association (CCIA), the National Concrete Ready Mix Association (NRMCA) and the Silica Fume Association (SFA).