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Technology Solution for Corrosion under Cementitious Fireproofing (CUF)

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Corrosion Under Fireproofing (CUF) is an increasing problem. In years previously it was thought that the use of cementitious fireproofing provided carbon steel with an alkali environment and so prevented corrosion. Unfortunately, this has not been the case and the lack of protection has led, in some cases, to catastrophic and near fatal disasters. An example of this is the case of gas sphere legs, where the majority in the world have been fire protected with lightweight cementitious solutions. The first 3-5 years there is little or no problem, however over time the alkali environment and passivation of the steel is neutralized and eventually becomes a corrosive environment, hidden to a great extent. There are several options when it comes to protecting against corrosion in this situation as there are methods to detect CUF and increase life expectations for Fireproofing and the steel structures that are desired to be protected. This paper looks into these options to increase safety and reduce life cycle cost of industrial facilities.