ACA BRANCH NEW ZEALAND BRANCH

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UPCOMING ACA WEBINAR

hosted by Taranaki Division and the Oil & Gas Technical Group

Date: **Tuesday 1st December 2020**

Time: 1pm-5pm **(NZ time)**

Subject: **Hidden Corrosion: Prevention, Detection and Remediation**

The Taranaki Division of the ACA's NZ Branch and the ACA's Oil and Gas Technical Committee are pleased to invite all interested parties to this half-day online seminar focused on dealing with the prevention, detection and remediation of hidden corrosion. Speakers are currently being finalised.

Register online at https://membership.corrosion.com.au/blog/aca-events/hidden-corrosion-prevention-detection-and-remediation/

Free attendance offered to all ACA members.

ACANZ would like to gratefully acknowledge this month's sponsor...

REPORT ON ACA AUCKLAND TECHNICAL MEETING

A live technical meeting was held by Auckland Division of ACA on Wednesday 28th October at the Surrey Hotel in Grey Lynn, Auckland, with the Auckland ACA Chair Matt Vercoe chairing the meeting. The Speaker was Stewart Hobbs, a structural engineer and Principal of ProConsult Engineers, based in Remuera Auckland. ProConsult undertake specialised structural engineering work, including forensic engineering on failed structures and durability of built structures. The live meeting was attended by a group of intrepid members and guests who re-surfaced after 'hibernation' during the Covid-19 pandemic.

After pre-meeting refreshments, Stewart commenced the presentation with an outline of the NZ Building Act 2004, the role of Producer Statements, and an outline of Clauses B1- (Design) and B2 (Durability) of the NZ Building Code (NZBC). He asked the question whether Clause B2 material durability requirements of 5 years, 15 years and 50 years for different components of a built structure make sense in the real world. In spite of Clause B2, existing there have been many recent problems (e.g. leaky buildings) in the building industry due to inadequate materials and poor design. He suggested that many of the building failures that he had observed were caused by the relationship between durability and keeping material costs down.

Stewart outlined a list of the common causes of failures in buildings, many of which already were well documented. He then described various problems encountered with durability of concrete structures, such as cracking, inadequate concrete cover, poor joint detailing, poor placing of steel rebar, and poor placement of hydrophilic stops. The causes of concrete failures were illustrated by a number of recent case studies by ProConsult. The next section addressed the durability of steel and aluminium structures. Failures of metallic building components had continued to occur in spite of the existence and use of the Code of Practice for installing steel in corrosive atmospheres (HERA) and the Standards NZS3604 for timber frame buildings and NZS2312 for selection of metal coatings.

In conclusion, Stewart addressed the issue of "what needs to change" in order to avoid building durability problems, a lot of which were due to material corrosion. He went through a list of factors that would assist to improve the durability of materials in buildings to ensure that they meet the requirements of the durability Clause B2 in the NZBC. Education of designers, architects and engineers on how Clause B2 durability can be met was high on his list.

A lengthy Q&A session followed, with much audience participation and case histories being described by the participants. Chair Matt Vercoe thanked Stewart for his excellent presentation. He noted that it was great that a face-to-face ACA technical meeting was finally held after the long Covid-19 lockdown.