



May 2018 Coatings and Linings

#### In Brief:

- The 4<sup>th</sup> of the YEP program Coatings and Linings
- An extremely broad subject with all sorts of associated risks
- The new ISO 12944-9 discussed in detail
- The delivery of the Case study
- The teams are announced
- The mentors are assigned to the teams
- The YEP delegates enjoy a networking event after an evening of study on a canal boat in Paddington

# Young Engineer Program 20<sup>th</sup> June; Fire Protection CB&I in Paddington

18<sup>th</sup> July; Cathodic Protection, Dave Harvey at CB&I in Paddington

19<sup>th</sup> September; Chemical Treatments, George Winning at CB&I in Paddington

17th October; Risk Assessment, Monitoring and Inspection, John Lilley at CB&I in Paddington NB There will be discussion on Presentation Skills at the

8<sup>th</sup> November; Presentation of the Case Studies and awards evening at Imperial College, London

# Coatings & Linings and Introduction of Case Study By David Mobbs and Richard Carroll

## **Coatings and Linings**

The May meeting of the Young Engineers program was held at the CB&I offices in London. This month the topic was Coatings and Linings which was presented by David Mobbs and was warmly received by the enthusiastic audience. The presentation covered the high priority areas of coating including the requirement to qualify products to standards, the standards and what they mean, the testing methods required to achieve this qualification, some typical specifications and the pitfalls and Engineer can fall into. The new ISO 12944-9 formed the backbone of the discussion as it now covers all aspects of coating specification and system selection.

The discussion also looked at modern day options that could be adopted and how innovative ideas are also qualified in the new ISO standard and the requirements for their use.

#### Part 9 - Protective Paint Systems for Offshore



#### Corrosion Categories - Amendments to current ISO 20340

- ☐ Corrosion Category C5M will become Cx Offshore
- ☐ Immersion Category IM2 will become IM4





### The Case Study

Prior to the presentation the case study for the program was presented to the delegates. The case study was presented by Richard Carroll of Shell and he highlighted the importance of working together in the teams to deliver the required information as detailed in the document.

Each team will be giving a presentation to be delivered at the November ICorr London branch meeting, the winning team receiving a sponsored trip to NACE Nashville in 2019.

This year the case study is titled "Offshore Heat Exchanger Corrosion Failure" the delegates will be required to;

- Review the design and operating data and propose a root cause
- Define the failure scenarios
- Describe a testing scope to confirm the root cause
- Perform a corrosion risk assessment
- Identify mitigation options to prolong the service life of the heat exchanger
- Design materials for a replacement heat exchanger

We are extremely grateful to all those members of the Institute that give up their free time to help the cause not least the mentors this year, who are;

John Boran

Rob Doggett

Chris Googan

The teams will meet their mentors in the coming weeks and get going on the case study, a linked in page and drop box have been set up for the teams to help them with this process.



The delegates enjoyed an excellent meal on a canal boat in Paddington after the presentation, hosted by ICorr. A thoroughly recommended experience that all enjoyed.

The next YEP meeting will be on  $20^{\text{th}}$  June at CB&I in Paddington and the topic will be Hydrocarbon Fire Protection

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Again, we would like to thank our Hosts CB&I especially Sadegh Parvizi for organising the venue, our sponsors BP and our speakers, organising committee and delegates who are travelling from Leeds and Newcastle to attend the event each month.