Corrosion Engineering Division

Meeting Minutes

The kick-off meeting of the Corrosion Engineering Division was called to order at 14.00 on 10th September 2008 in Edinburgh, (Eurocorr 2008, Sheraton Hotel) by Nick Smart.

Those Present:

Nick Smart (Serco, NS) (CED co-ordinator)  |  Jeremy Twigg (REL, JT)
Douglas Mills (ICorr, DM)  |  Robert Winsley (Serco, RW, secretary)
David Deacon (SPC, DD)  |  Ross Fielding (Impalloy, RF)
Eve White (ICorr, EW)  |  Robert Herbert (President NACE, RH)
Bob Akid (Sheffield Hallam University, BA)  |  George Hayes (Director General, WCO, GH)
Brenda Peters (ICorr, BP)  |  Adeline Alexander (International Paint, AA)
Ian Wesley (Atkins, IW)  |  Stanley Nwaonu (Impalloy, SN)
Zeinab Marsh (ICorr, ZM)

Agenda

1. Welcome and introductions (NS)
2. Introduction to CED and proposed organisation (NS)
3. Guidelines for operation of committees
4. Report from Intumescent Coatings group (IW)
5. Report from Water Jetting working group (IW)
6. Plans for CED Working Day on October 7 at Birmingham University
7. Collaboration with EFC and NACE
8. General discussion about activities of the working groups
9. Any other business

1. Welcome and Introductions/apologies

NS welcomed all to the kick off meeting for expanding the activities of the Institute of Corrosion’s Corrosion Engineering Division. All attendees introduced themselves.

DM: Apologies had been received from Working Group chairs unable to be present.

2. Overview of the CED objectives

NS gave a brief overview of the CED’s current objectives and the proposed next steps (see attached presentation, CED BackgroundEdinburgh.pdf). There are currently two effective working groups (WGs): intumescent coatings and water jetting. The proposed new working group structure was as follows (the WG chairs are indicated).

- Cathodic protection (chair Ross Fielding)
- Monitoring (chair Bill Cox)
- Nuclear (chair Nick Smart)
- Coatings (chair Brenda Peters) – this includes existing task groups on Intumescent Coatings and Water Jetting
- Oil-field chemicals (chair Peter Allison)
- Water treatment (chair Pam Simpson)
Corrosion Engineering Division

- Corrosion in Concrete (chair John Broomfield, combined with ICorr, Concrete Society and Corrosion Prevention Association Joint Liaison Committee)
- Combustion systems (chair to be nominated)

NS: WG chairs are to nominate a vice chair and a secretary for their WG
RF: CED should focus in part on addressing accepted standards that are somewhat insufficient and gave the area of CP as an example.
BA: Would like CED to use Corrosion Management and the new website to improve communication and aid in disseminating information. NS has requested that CED should have its own area on the new ICorr website.
ZM stressed that the CED should aim to compliment other groups i.e. NACE and EFC, and not mimic them. This was agreed by all.
EW enquired about the status of the new website. BA advised that it was moving along and that the format needed to be finalised before it can go live.
DD commented that the CED should be very careful to avoid making any legally binding recommendations through any documents, since there is a possibility of serious legal ramifications.

3. Overview of Intumescent Coatings WG (IW)

IW gave a brief overview of the activities within his WG.
Version 3 of the Intumescent coatings document is complete and version 4 is due to be released in draft form very soon for consultation with ICorr.
NS asked whether CED should follow a formal procedure for document approval and release.
DD advised that CED should obtain a copy of the NACE procedure for this.
NS suggested that CED should follow a simplified procedure.
EW advised that IICorr could provide such a review service if this was of interest to CED, using key technical experts and legal professionals.
DD stated that an important difference is that CED would give advice, not commercially sell advice, therefore the legal side is different; again CED should research what procedure NACE use.
IW saw the importance of CED distilling its information into documents that end users can read, understand and apply.
EW raised the point that documents have to be reviewed periodically; in the IICorr system they are removed from public view if the renewal date passes.
DD liked the idea of IICorr involvement, but raised the concern that the CED should not favour any particular ICorr sustaining member companies. BP commented that ICorr have a set procedure for such situations and this should be consulted.

4. Overview of Water Jetting WG (JT)

JT gave an overview of the advantages and disadvantages of water jetting steel structures for maintenance painting. He also covered the history of the CED working group on water jetting. Key points were:
- The Environment Agency had adopted water jetting – it was used for coating removal on the Thames and Barking Barriers.
- Network Rail had also used WJ guidance notes for application and re-application of protective coatings.
- There was an article published in Corrosion Management late last year.
- The WG was working towards the production of international standards for water blasted surface preparation. ISO is the next step. Planning of how this will be achieved is due to begin later this year. It could be released as an ICorr document through CED.
5. Plans for CED Working day on 7th Oct 2008 at Birmingham University Conference Centre.

NS: The onus is on WG chairs to finalise WG agendas and speakers for the day and advise NS as appropriate.
BP asked who were the target group of members for the CED working day, and what will attendees get for their registration fee of £70 or £80?
NS commented that Peter Scott was due to give a plenary lecture, and that networking was a key benefit to attendees.
DD suggested that the chairs of each WG should get the agendas to NS so that they can be mailed out ASAP. He also suggested that each WG should have a keynote speaker to encourage attendance for the respective WGs.
DM suggested that as their had been little interest registered in the planned combustion WG perhaps it could be dropped and replaced with a ‘Corrosion in Concrete’ WG, which had had some support.
NS advised all that Serco had provided some financial support for the CED working group meeting to be held on Oct 7th and that letters had been sent out to other potential sponsors.

6. Incorporating CED With EFC and NACE

All agreed that Roger Francis’ view (described in NS’ presentation) is not held by them and that progress on organising a new look CED should continue.
BP commented that she had spoken with the Coatings group chair for EFC, and plans to also speak to the NACE equivalent. NS had done likewise with the NACE and EFC chairs for the Nuclear WGs.
All agreed that it would be useful to have separate UK representation.
RF asked how one finds out who are the relevant chairs for the NACE and EFC WGs.
DM/NS advised that contact details are published on the EFC and NACE websites.
GH commented that NACE documents and standards are reviewed within 5 years of publication. He also explained that electronic versions of all NACE standards are free to NACE members. NACE would welcome CED comment on standards as and when they come up for review.
BP stated that she had planned further talks with NACE Europe within the next few weeks.
All agreed that the emphasis should be on collaboration with NACE and EFC, not competition.

6. Further business

RF raised his concern that the industry currently have to send all employees to the USA to gain the required level of training (i.e. NACE courses). This is very expensive, especially if the employee then leaves for a competitor. Could more NACE courses be held in the UK, to reduce the expense associated with attendance?
BP stated that she had had a few enquiries at Eurocorr 2008 regarding setting up UK -based corrosion training courses.
RH stated that there is an interest within NACE re. bringing training courses (CP in particular) to the UK.

The meeting closed at 4 pm.
Introduction to Corrosion Engineering Division

Presentation to
Institute of Corrosion, CED General Meeting

Presented by
Nick Smart/Serco Technical and Assurance Services

Wednesday 10 September
Objectives of ICorr Corrosion Engineering Division

- 2007: Institute of Corrosion Council desire to expand activities of CED
- A mechanism for members to meet and discuss corrosion engineering issues related to their field of activity in the UK.
- A forum to facilitate the exchange of information and experience.
- A mechanism for members to jointly prepare documents that are of immediate and practical use to them in their field of activity (e.g. codes of practice, guidelines for processes and techniques, input to standards bodies, etc.).
  - Documents produced by the working groups will be downloadable through the ICorr web site for a small fee.
  - Existing CED documents could be updated as part of working group activities.
- A means of liaising and communicating with the working parties of international organisations (e.g. EFC, NACE working parties) and reducing the expense of traveling abroad to attend meetings.
- Allows focused discussion of local UK issues
Proposed CED organisation

- CED coordinator (I Corr Council member): Nick Smart (Serco)
- I Corr / CED technical secretary: Douglas Mills (Northampton University)
- Bill Cox (I Corr Council member): – adviser to CED
- Two existing working groups:
  - Intumescent Coatings (Ian Wesley chair)
  - Water Jetting (Jeremy Twigg chair)
Proposed new working groups

- New working groups
  - Monitoring (chair Bill Cox)
  - Nuclear (chair Nick Smart)
  - Coatings (chair Brenda Peters)
  - Oil-field chemicals (chair Peter Allison)
  - Cathodic protection (chair Ross Fielding)
  - Water treatment (chair Pam Simpson)
  - Combustion systems (chair to be agreed)

- Suggestions for other groups?
  - Corrosion in Concrete (John Broomfield)
Means of CED operation

- Information exchange through ICorr web site and e-mail groups
  - I Corr web site currently being redesigned to include technical forum area

- Periodic working days:
  - Kick-off session at Eurocorr 2008, Edinburgh
  - October 2008 at Birmingham University
  - Spring 2009 working day
  - Autumn 2009 working day, combined with CORREX conference in October
  - Details for all these meetings to be confirmed through ICorr head office

- Liaison with EFC and NACE committees will be through the appropriate working group chairs

- Working group operational guidance in preparation
  - Keep it simple
CED organisation

Institute of Corrosion Council

CED Coordinator and Technical Secretary

- Working groups – Chair, vice chair, secretary
- Task groups as required – task leader

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- Task groups as required – task leader
<table>
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<th>CED - organisational principles</th>
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<td>■ Limited term for committee chairs</td>
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<td>- 2 years?</td>
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<td>- Task groups should have a clear stated project assignment</td>
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<td>■ Report on working group activities provided to CED coordinator before each council meeting (~3 times/year)</td>
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Questionnaire to members

- Questionnaire circulated in December 2007 and August 2008
- Approximately 40 replies in total
- NRS to forward replies to relevant working group chairs
- Some interest in all groups.
  - Coatings > CP > Monitoring = Oil-field chemicals = Water treatment > Nuclear > Combustion systems
- John Broomfield proposal for corrosion in concrete group
- Roger Francis view
I am proposing that ICorr sets up a working group on corrosion of steel in concrete and that this group becomes ICorr's part of the already existing ICorr, Concrete Society, Corrosion Prevention Association Joint Liaison Committee.

The committee has recently produced:

- a Concrete Society Technical Report No 60 "Electrochemical Tests for reinforcement corrosion"
- Presently working on Guide to the repair of concrete structures with reference to BS EN 1504 (working title)
- I am present chair of the committee. In the 1970s a similar joint committee of ICorr (CEA/CED) and the Concrete Society produced the Concrete Society Technical Reports on Cathodic Protection of Steel in concrete which became the basis of BS EN 12696 on the same subject.
Collaboration with EFC-NACE

Roger Francis view:

- While I have nothing against this idea it could be very divisive. With the demise of CED and the rise of industry focused Working Parties in EFC, most people I know are happy to work with EFC. A lot of the proposed CED groups already have active WP's in EFC. There should, at a minimum, be active cooperation between any new CED groups and EFC, in the same way that EFC WP's cooperate with NACE Technical Committees. The World is a small place these days and people's time is precious so let's not go re-inventing the wheel.
Old CED reports - 1

Guidelines for Corrosion Monitoring and Control in Seawater Injection Systems
Prepared by Task Group E2-5

Guidelines for Testing for Resistance to Cathodic Disbondment
Prepared by Task Group E5-10

Working Definitions of Solubility, Dispersibility and Partitioning for Corrosion Inhibitor Application to Oil and Gas Production Systems
Prepared by Task Group E3-4

Selection of Test Methods for Laboratory Performance Evaluation of Sacrificial Anodes
Prepared by Task Group E4-5

Atmospheric Corrosion Behaviour of Galvanised Steel in the UK
Prepared by Task Group E5-8
Old CED reports – 2

Wet Abrasive Blasting in the UK and Offshore (North Sea, British Sector)
Prepared by Task Group E5-1

Prepared by joint working group of ICorr and NACE

Cathodic Protection Monitoring on Buried Pipelines
Prepared by Task Group E4-2

The Surface Preparation of Line Pipe Steel prior to Application of Thermoset or Thermoplastic Anti-Corrosion Coatings - A Review of Current Procedures.
Prepared by Task Group E5-6

Specialised Surveys for Buried Pipelines
Prepared by Task Group E4-2
Review of Non-Conventional and Supplementary Methods for the Detection of Sulphate-Reducing Bacteria in Oilfield Waters
Prepared by Task Group E1-4

Liquid Applied Internal Protective Linings and Coatings for Oil Field Production Equipment
Prepared by joint venture Task Group E5-5

Standardised Procedures for the Bubble Test for the Selection of Oil Field Corrosion Inhibitors
Prepared by Task Group E3-3

Survey of Microbiological Hazards and Risks Associated with Offshore Oilfield Operations
Prepared by Task Group E1-6

Prepared by Task Group E1-1
CED working day

- Tuesday October 7th
- Birmingham University Conference Centre
- Plenary lecture: Dr. Peter Scott
  - Recently retired from Areva, France
  - Plenary lecture entitled “Corrosion Issues in PWRs”
- Working group meetings to discuss tasks for working groups
- Topical presentations within working groups
- Working group chairs to arrange agendas
- Free discussion time about working programme