



WORKING PARTY ON MARINE CORROSION (WP 9)

MINUTES OF THE MEETING HELD ON 11TH SEPTEMBER 2009 **AT PALAIS DES CONGRES ACROPOLIS** **(EUROCORR 2009 CONFERENCE)**

Chair: Ulf Kivisäkk – AB Sandvik Materials Technology, ulf.kivisakk@sandvik.com
Vice-chair: Carol Powell – CDA, carol.powell@btinternet.com
Secretary: Anne-Marie Grolleau – DCNS Cherbourg, anne-marie.grolleau@dcnsgroup.com

SUMMARY OF MAIN DISCUSSION AND DECISIONS

- New EFC book dedicated to engineers new in the field of marine corrosion : the template of each chapter has been defined; the basic layout of the book has been agreed on.

ATTENDEES

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Linda Goldberg	Nace	USA	linda.goldberg@nace.org
Stale Nodland	Statoil Hydro		



1. OPENING AND WELCOME

The chairman, Ulf Kivisäkk, opened the meeting and asked the 12 attendees to introduce themselves. The agenda was presented for approval and was accepted.

2. APOLOGIES FOR ABSENCE

Apologies for absence have been received from the following members:

- Leif Berthagen,
- Olga Sarc-Lahodny,

3. MINUTES OF THE LAST MEETING

The chairman reviewed the minutes from the last meeting held in Edinburgh on September 11th 2008 for comments from the audience. The minutes were approved without any comment.

4. ACTIVITIES FOR THE WORKING PARTY WP 9

a. Publication of “The avoidance of Corrosion in the Offshore Environment”

During the 2008 meeting it was decided to start writing a guide that would be valuable to engineers new in the field of marine corrosion. A task group has started to work on the document and met at NACE 2009 in Atlanta. The objective is now to publish an EFC book. The attendees were then encouraged to participate in the second part of the meeting dedicated to the publication of this document and in particular, to agree on a template and to distribute the work among the volunteers.

Mrs Goldberg suggested that this publication could be a joint EFC-NACE publication. Ulf Kivisäkk approved this idea although the way to do this joint publication needs to be investigated, and there is probably a need to publish the EFC book first before going on with a joint publication.

R. Francis informed the committee that Farrel Martin, chair of the NACE STG 44 committee has already agreed to work on this project.

b. Performance of Copper base alloys in seawater piping systems

Following the 2008 workshop, a task group has been organised with the objective of providing basic guidelines for the use of copper alloys, particularly copper nickel.

Carol Powell informed the committee that the UK MOD has already issued a document on this particular topic and resulting from a three year extensive research programme. This document focuses on copper nickels, the possible pre-treatments and their effectiveness and gives basic guidelines on flow velocities. This document, DEF Stan 02-781, published on 15th May 2009, is available on the Internet.

c. Survey about existing seawater testing laboratories

During the last meeting, Robin Oakley has agreed to provide a list of UK laboratories based on Marine Corrosion Forum (MCF) data. He has also agreed to provide a questionnaire template from the MCF to Ulf Kivisäkk to help start this EFC data base.



d. Standardisation of the Crevice test methods

The method will become an ISO standard test method. It was asked that the ISO draft is provided with the minutes of the meeting. However due to formalities, a new work item must be made to ISO and it will be circulated to the members when finalised.

e. New ideas

R. Francis suggested the implementation of e-learning modules: individual learning with a series of questions that are to be answered at the end.

5. Report from the STAC meeting

U. Kivisäkk asks the committee if there was any objection to the publication of the minutes of the WP 9 meeting on the EFC website. There was no objection and this action is seen as a way to reach a broader audience.

The homepage has been updated with the missions of the WP 9 committee, the publications and the minutes of the meeting.

U. Kivisäkk also informs the committee that the collaboration with NACE is encouraged by the EFC.

6. Report from Eurocorr 2009

U. Kivisäkk assessed this year's conference. 8 papers have been presented in the general session. This general session was followed by a workshop on the seawater fouling control. 4 excellent papers were presented during this workshop. A joint session was also organised with the WP16 (cathodic protection) and 4 papers were also presented. The attendance at the marine corrosion part of the conference was good.

7. Marine corrosion session for Eurocorr 2010

Eurocorr 2010 will take place in Moscow, Russia, from September 13th to 17th. The sessions for which the WP9 committee is involved are:

- A general session in Marine Corrosion
- A session organised by the local committee and devoted to marine atmospheric corrosion
- A joint session with the WP 12 (oil&gas): Ulf Kivisäkk is in contact with T. Chevrot, chair of the WP 12 for this session.

8. Any other business

No additional suggestion was made.

9. Next meetings

The next EFC Marine meeting will be organised during the next Eurocorr Congress in Moscow. Additionally, a session devoted to the document "The avoidance of Corrosion in the Offshore Environment" will be held during the next NACE conference in San Antonio, USA.

10. Workshop : "The avoidance of Corrosion in the Offshore Marine Environment"

Much progress has been made since the last meeting in 2008. A general layout of the document was presented. The idea is to write a brief booklet that gives the main technical



information and gives sources. The chapters must be short with a maximum of 14 pages for each chapter but with a good bibliography. The materials/chapters to be covered are:

- Steel
- Copper alloys
- Stainless steels
- High nickel alloys
- Titanium
- Aluminium alloys (nobody has volunteered to write this chapter. Clive Tuck has been asked)
- Coatings (Farrel Martin has offered to write this chapter).
- Galvanic Corrosion

For each chapter the agreed layout is basically as follows:

- Introduction
- Applications
- Characteristics/types
- Performances: atmospheric corrosion, splashed zones, immersion, SCC, pitting and crevice corrosion, MIC, Chlorination, fabrication.

Note that it is important to include problem areas and solutions which can include alloy group changes. Tables and graphs will be included but to a restricted number.

Finally, some ideas for the title are given: "Corrosion behaviour of alloys used in the marine environment. A guide for new engineers".

11. Closure

Ulf Kivissakk closed the meeting and thanked the attendants and contributors.

Written by	Anne-Marie Grolleau, Secretary	April 1 st 2010
Verified by	Carol Powell, Vice chair	April 16 th 2010
Approved by	Ulf Kivissak, Chairman	April 16 th 2010