



Working Party on MARINE CORROSION

MINUTES OF MEETING 1.10.03
AT EUROCORR CONFERENCE, CONGRESS BUILDING, BUDAPEST

Present:

H. Amaya, JP
D. Bermond-Tilly, F
T. Braisaz, F
B. Espelid, N (chairman)
D. Feron, F
G. Ferrari, NL
O. Forsén, FIN
A-M. Grolleau, F
S. Huizinga, NL
M. Jasner, D
U. Kivisäkk, S
O. Lahodny-Sarc, HR
E. Rislund, DK (secretary)
T. Rogne, N
I. Skalski, PL

1. OPENING AND WELCOME

The chairman opened the meeting and presented the agenda for approval. The agenda was accepted.

Apologies for absence had been received from the following

J. Oldfield, GB

J. Birn, PL
J.-P. Audouard, F
R. Francis, GB

2. MINUTES OF LAST MEETING

When introducing the minutes the secretary informed that the minutes for the first time had been distributed by e-mail as this is much more efficient than ordinary mail. The chairman added, that it is the intention to publish the minutes on the WP's website.

The chairman went through the minutes from the Granada-meeting for comments from the audience. During the presentation he mentioned the running activities according to the three years plan as reported to the EFC. He apologized that no meeting had been held in spring, which was due to the fact that many had travel restrictions at that time. The minutes were approved without comments.

3. THE CREVCORR ROUND ROBIN TEST. RESULTS AND FURTHER WORK

Trond Rogne presented the status of the round robin test. He mentioned the background of the project as the problem with repeatability and comparability of crevice corrosion test results due to variations in crevice geometry.

Two different tests had been performed, namely the short term biochemical test in artificial sea water and half a year exposure in natural sea water. 20 laboratories around the world were involved which had given not only a lot of work in communicating with the participants but also a huge amount of produced data. He went briefly through the procedures that had been used in the test stating the key feature, namely spring loading the crevice former with a force of 0,9 kN.

In presenting the results of the biochemical test he mentioned, that initiations were experienced in 2-4 days if any, which means that initiation occurs rather early in the exposure period. With few exceptions 316L initiated at 20°C at all laboratories. In the few exceptions the potential ennoblement due to the action of GOD had not been achieved probably due to consumption of GOD because the electrolyte had not been renewed when a new run was made. For duplex 2205 one initiation had been observed at 20°C. At 30°C a few initiations had occurred, but most participants had god initiations at 40°C. For 254SMO no initiations had been observed under 40°C.

For the six months test in natural seawater it was observed that all laboratories experienced potential ennoblement even in the Mexican gulf where the temperature is 25-29. All had experienced activation of 316L which is in accordance with previous experience. 2205 had activated at one site (Mexican Gulf) and no initiations were observed on 254 SMO.

For the results treated so far Trond Rogne concluded, that the procedure and crevice assembly is simple and easy to use. The results are generally consistent but with some larger differences in the biochemical test which looks like a possible replacement for qualifying materials for seawater use. Some work might be worth for looking into the robustness of the method, with the end goal to make it an ISO standard.

Ulf Kivisäkk presented the method developed by Sandvik from the Crevcorr crevice forming technique for crevice corrosion testing of tube materials and with the aim to qualify stainless tube materials for use in seawater.

After the presentations the matter and further work was discussed. Sytze Huizinga mentioned, that all data from the round robin test should be available for the participants, and it was discussed how to do it. Further the kick off of the ISO-process was announced which was considered as a possible big improvement in the basis for the qualification of materials for use in seawater.

The chairman proposed, that we should aim to publish it as an EFC publication together with some papers from Eurocorr2004. In that connection it was proposed to invite Mr. Birn as a keynote speaker in 2004 and that the paper is published like Mr. Ijssellings on stainless steel.

4. EUROCORR

The next Eurocorr is going to take place in Nice, France next year. Mr. Feron presented, as a member of the organizing committee, presented the conference. Several WP's have organized special sessions.

A marine corrosion workshop on copper and aluminium alloys in sea water was planned following the survey made by Birn. The aim is to make a green book on the topic like what has been done on stainless steel in seawater during the past many years, where more volumes had appeared. The chairman asked for proposals for keynote speakers. Trond Rogne responded, that prof. Kemal Nisancioglu from Trondheim could be a keynote speaker on aluminium. M. Jasner added that a paper on biofowling of aluminium, copper, aluminium bronze and brasses would be worth. On request Skalski mentioned, that dr. Birn could present the literature survey

In addition to the workshop an open session will be organised. The chairman asked for papers for this session. Joint sessions with other relevant working parties have been discussed previously. For Eurocorr2004 it was intended to make a session with WP on microbiologically induced corrosion, but this had been mixed up by the organizing committee. So a joint session with this WP is postponed to 2005, where few good sessions are foreseen. Another possibility for a joint session could be with the WP on cathodic protection.

Eurocorr2005 is in Lisbon, Portugal. A STAC decision has been made to use the occasion for highlighting the 50th anniversary of The European Federation of Corrosion. As a consequence we should aim at a paper on the development in marine corrosion research and control within the past 50 years for presentation in the marine corrosion session

5. EFC-MATTERS

The chairman mentioned the marine corrosion forum in order to apply for EU-funding. This is difficult to get and the work with applications and lobbying is extensive. To coordinate this work a person should be sought on a voluntary basis. A horizon could be half a year for an initiative to be taken.

Recently a proposal has been for a new working party on degradation of structures. Really no interest has been shown as this topic is already covered and some overlap between parties is present. For instance WP on oil and gas is already discussing cathodic protection in seawater.

The chairman presented his report to STAC for the years 2003-2005. Book publications are an important activity and should continue. In this connection it was mentioned, that the time for book publications is too long and should be shortened. This year we had no success in this area.

Topics for new publications could be

Antifouling systems (Wilms, Ferrari)

Standards on corrosion testing in seawater (for this topic an author is sought)

The French ISO-representative could check what is available from ISO.

The chairman was of the opinion that we should try to start this initiative

Ferrari was asked to give a presentation at the next meeting.

Other proposed topics to be dealt with were

Titanium

Low alloyed steels for marine application

The presented three years plan should be published on the website.

6. NEXT MEETING

Some matters were suggested concerning the coming WP-meetings. Previous invitations for hosting had been given by Mrs Lahodny-Sarc, Mr. Feron and from CSM. In addition invitation to hold the meeting in den Helder was given. In this way the next meeting may be held in Paris, Dubrovnik, Rome or den Helder. The meeting is expected to take place late April, but no date was set.

7. CLOSURE

The chairman closed the meeting and thanked the attendants and contributors.

8.09.04

Ebbe Rislund