

Minutes of EFC WP 15 Corrosion in the Refinery Industry

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1 WELCOME

Francois Ropital opened the meeting.

18 persons attended the meeting and briefly introduced themselves. The list of the participants is enclosed in Appendix 1.

2 EFC WP 15 ACTIVITIES

2.1 EFC WP 15 activities And Minutes of Meetings

Information on the activities of EFC WP 15; Corrosion in the Refinery Industry, was presented by Francois Ropital. This information can also be found on the EFC web site where the minutes of previous WP15 meetings can be consulted and downloaded. More information is enclosed in Appendix 2.

<http://www.efcweb.org/Working+Parties-p-104085/WP+15-p-104111.html>

2.2 Publications from WP15

The following publications are available:

- EFC Guideline no. 40: "Prevention of Corrosion by Cooling Waters"
<http://www.woodheadpublishing.com/en/book.aspx?bookID=1193>

An update of this document has been published as a joint NACE – EFC guideline on the topic: “Monitoring and Adjustment of Cooling Water Treatment Operating Parameters”, NACE item 24238.

- EFC Guideline no. 42: Corrosion in refineries
<http://www.woodheadpublishing.com/en/book.aspx?bookID=1295>

This is a collection of selected papers from previous Eurocorr sessions.

- EFC Guideline n°46: "Amine Unit Corrosion Survey"
<http://www.woodheadpublishing.com/en/book.aspx?bookID=1299>
- EFC Guideline n°55: "Corrosion under insulation CUI guidelines"
<http://www.woodheadpublishing.com/en/book.aspx?bookID=1486>

More information on the availability of these EFC guidelines and how to order these can be obtained with the following web link:

<http://www.woodheadpublishing.com/en/search.aspx?basic=EFC>

Discussion on proposals for revision of these publications:

- EFC Guideline n°46: "Amine Unit Corrosion Survey"

The EFC guideline n°46 contains data that have been collected more than 10 years ago. An update seems necessary with the inclusion of

decarbonation units. This revision will be proposed in cooperation with WP13 (Oil & gas production). The content of the n°46 document is enclosed in appendix 3 in order that the plan of the revision could be discussed and decided during the next WP15 meeting.

- EFC Guideline n°55: "Corrosion under insulation CUI guidelines".

An update is planned (see section 4 of this document)

Discussion on proposals for future publications:

- A best practice guideline to avoid and characterize the high temperature stress relaxation cracking of austenitic materials (regarding the advancement of the Cefracor group on the subject see section 3).

2.3 Downloading Previous Eurocorr Conference Papers

The previous Eurocorr conferences papers (Eurocorr 2004, 2005, 2006, 2007, 2008, 2009) can be downloaded via the members pages of each of the national member societies of EFC. The list of EFC member societies is available on the web page

<http://www.efcweb.org/Who+we+are/Member+Societies.html>

2.4 Collaboration with NACE

2.4.1 Exchange of Information

Exchange of information between WP15 and the NACE groups dedicated to the same topics are encouraged. Rob Scanlan is the EFC WP15 representative for the NACE meetings during the annual NACE Conferences to inform on the WP15 activities. The minutes of the EFC WP15 and NACE STG 34 meetings will be exchanged between Linda Goldberg and Francois Ropital.

2.4.2 Joint NACE EFC congress on corrosion in refineries

It was suggested that it might be possible for NACE and EFC to cooperate over the organisation of one conference in Europe. The theme of corrosion in refineries has been selected. Due to travel budget restriction in our companies and in order to not overlap with others conferences in 2010, a web cast of meeting of the NACE TEG 205X Refining Information Exchange at CORROSION 2010 has been performed. The links to the web pages has been sent to the WP15 members: for further information on these links, contact Francois Ropital.

2.5 EUROCORR 2010

This annual working party meeting was held in Moscow during the Eurocorr 2010 conference "From the Earth's depths to the Space heights".

The session dealing with refinery corrosion has been held on 14 and 15 September. Attendance of the working party sessions was between 20 and 30 persons.

2.6 EUROCORR 2011

Eurocorr 2011 "Developing solutions for the global challenge" will take place in Stockholm, Sweden from 4-8 September 2011. Its web site is:

<http://www.eurocorr.org>

A Joint Workshop on High Temperature Corrosion in Refinery and Process Industries will be organised with WP3 ("High Temperature") and a session related to corrosion in the refinery industry is also planned.

Abstracts are welcomed and the deadline for submission is 31 January 2011.

3 STRESS RELAXATION CRACKING OF STAINLESS STEELS – ADVANCEMENT OF THE CEFRACOR SURVEY

The stress relaxation cracking phenomenon had been previously discussed in WP15 meetings (especially during the 2007 spring meeting). Many WP15 participants supported the proposal to establish a standard test method and a guideline to prevent these failures that could be published in the EFC guidelines series. Francois Dupoirion under the auspices of the Oil and Gas Committee of Cefracor (French corrosion association) continues the activities on this subject in order to propose a characterisation test and to have discussions with steel providers and with Codes authorities. A resume of the advancement of this task force is included in Appendix 4.

4 CORROSION UNDER INSULATION

EFC WP15 has been contacted by ENAA (Engineering Advancement Association of Japan), a subsidiary organization under the Ministry of Economy, Trade and Industry, in order to discuss and share experiences in managing CUI. ENAA asked to have a meeting with EFC to discuss the CUI topic.

It has been first proposed to have this discussion during the EFC WP15 2011 Spring Meeting but as ENAA has to propose a draft guideline on CUI before the end of 2010. A specific meeting will be organised on 25 November 2010 in Paris (Maison de la Chimie – 28 Rue St Dominique 75007 Paris). An email has been send to WP15 members in order to inform them of this meeting. The agenda will be:

- Presentation on EFC WP15 and Cefracor activities with emphasis on CUI
- Presentation of the CUI UK Forum activities
- Presentation of Japanese CUI problems including the activity of the ENAA's CUI committee and CUI in Asian countries
- Presentation of the ENAA draft guideline
- Short presentation of the EFC guideline 55 on CUI
- Discussion CUI guideline, in terms of NDT, preventive management(including risk based management to prevent CUI), case studies on actual applications of EFC's CUI Guideline
- Ways of revision of the EFC CUI guideline
- Others on CUI and corrosion failures in Japanese CPI and Europe

5 TOPICS FROM THE AUDIENCE

The following topics have been discussed:

- Chemical cleaning of scale – underscale corrosion

- Hydrotesting of delayed cokers
- Residues in boilers
- Stress corrosion cracking of fuel ethanol

6 NEXT MEETINGS

6.1 CUI Meeting on 25 November 2010

This meeting will take place from 9h30 to 16h00 in Paris city centre at the following address:

Maison de la Chimie - Room 354
28 Rue St Dominique 75007 Paris

Metro station: Invalides

The opportunity to have a 2011 spring meeting will be discussed during the CUI meeting.

6.2 2011 Autumn Full WP 15 Meeting:

This meeting will take place in Stockholm, Sweden from 4-8 September 2011 during the Eurocorr 2011 conference.