

**Minutes of EFC WP 15
Corrosion in the Refinery and Petrochemical
Industry**

Krakow (Poland)

11 September 2018

Prepared by

Francois Ropital

Johan van Roij

Content

1	WELCOME.....	3
2	EFC WP 15 ACTIVITIES	3
2.1	EFC WP 15 activities And Minutes of Meetings	3
2.2	Publications from WP15.....	3
2.3	Downloading Previous Eurocorr Conference Papers	3
2.4	EUROCORR 2018	4
2.5	EUROCORR 2019	4
2.6	EUROCORR 2020	4
2.7	Next 2019 WP15 spring meeting.....	4
3	CORROSION UNDER INSULATION	4
4	STRESS RELAXATION CRACKING	4
5	OVERHEAD CORROSION	5
6	CORROSION RESISTANT ALLOYS	5
7	INSPECTION MONITORING.....	5
8	NEXT MEETINGS	5

1 WELCOME

Francois Ropital opened the meeting.

38 persons attended the meeting and briefly introduced themselves. The list of 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, 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

Discussion on proposals for revision of these publications:

Revision of the EFC Guideline 46 “Amine units corrosion in refineries”. This revision takes place in the frame of a joint WP13-15 task force. The collection of field data and the writing of the guideline chapters are in progress.

Revision of the EFC Guideline 55 “Corrosion under insulation”. This revision will also takes place in the frame of a joint WP13-15 task force with Gino De Landtsheer in connexion with Stefan Winnik the previous editor. 13 persons joined the task force which objective is to propose a revised document for September. A first teleconference task force meeting will take place on 1 October.

Best practice guideline on corrosion in sea water cooling systems:

This task force will takes place in the frame of a joint WP9 (marine corrosion) WP15 and in collaboration with French Cefracor “corrosion of heat exchangers” group. The composition of the task force and the content of the document are in progress.

2.3 Downloading Previous Eurocorr Conference Papers

Papers from the previous Eurocorr conferences (from Eurocorr 2004 to 2017) can be downloaded via the member's 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>

Please contact your member society for more information on access to these papers.

2.4 EUROCORR 2018

This annual working party meeting was held in Krakow during the Eurocorr 2018 conference “Applied Science with constant Awareness” .

The session dealing with refinery corrosion took place on 10th September. Attendance of this sessions was between 50 and 60 persons, figures that reflects the attendance of the Eurocorr 2018 conference with about 1400 participants.

2.5 EUROCORR 2019

Eurocorr 2019 “New times, new materials, new corrosion challenges” will take place in Seville, Spain from 9-13 September 2019

The web site is: <http://eurocorr2019.org/>

A session dealing with corrosion in refineries will take place.

The deadline to submit abstract is 16th January 2019.

2.6 EUROCORR 2020

Eurocorr 2020 will take place in Brussels, Belgium from 6-10 September 2020.

2.7 Next 2019 WP15 spring meeting

The participants agreed to continue to have 2 working party meetings per year: one in spring and one during the annual Eurocorr conference.

Concerning the 2019 WP15 spring meeting, in order to avoid overlap with the Nace Corrosion Congress, the date should take place in April or beginning of May. More information will be given soon.

3 CORROSION UNDER INSULATION

Mabruk Suleiman (ADNOC Refinery Research Centre) presented CUI failure cases and emphasized the importance of process operation knowledge for selecting appropriate paint scheme for CUI.

4 STRESS RELAXATION CRACKING

New developments on a new methodology to characterize Stress Relaxation Cracking

Martin Monnot (Arcelor Mittal) presented the progress to develop a methodology to characterize SRC. Sensitization before straining has not permitted to highlight SRC. Also no cracks characteristic of SRC has been obtained with Four-point bending, Ubend and uniaxial traction set-up. New tests will be performed with 347 grade with higher content of carbon. More information can be found in Appendix 3.

MTI pending projects

Patrice Houlle presented the 291 MTI-Project that is intended to identify pre-conditions under which stress relaxation cracking occurs for specific alloys and subsequently develop a mitigation strategy. More information can be found in Appendix 4.

5 OVERHEAD CORROSION

Henk Helle (CorrosionControl.Nu) presented some limitations on the effectiveness of water injection in CDU overheadline . More information can be found in Appendix 5.

6 CORROSION RESISTANT ALLOYS

Jonas Höwing presented the hyper duplex grade S32707 that has an excellent corrosion resistance in chlorinated seawater. Even though initial cost is higher for S32707 than for CuNi solutions, long term savings can be expected. More information can be found in Appendix 6.

7 INSPECTION MONITORING

Use of IPad during 2017 turnaround in Schwechat

Barbara Skolyszewska-Kühberger (OMV) presented some benefits of the use of touch pads to increase the share of information during refinery turnover. Information are given in the following link: <https://www.youtube.com/watch?v=1png3z03a2k>

Extension of monitoring system – application of integrity operating windows.

Examples of application of integrity operating windows wer given by Barbara Skolyszewska-Kühberger (OMV). More information can be found in Appendix 7.

A selection of Permasense latest corrosion monitoring case studies from European refineries

David Lorkin presented some recent application of Permasense probes in CDU overheads and their economic benefits. More information can be found in Appendix 8.

8 NEXT MEETINGS

2019 Spring WP15 Meeting

It will take place in April – beginning of May. More information will be sent soon.

2019 Autumn Full WP 15 Meeting:

This meeting will take place in Seville, Spain from 9-13 September 2019.