



**EUROPEAN FEDERATION OF CORROSION
EUROPÄISCHE FÖDERATION KORROSION
FÉDÉRATION EUROPÉENNE DE LA CORROSION**

**MINUTES OF THE WP4 FALL MEETING
HELD IN ESTORIL CONGRESS CENTER, ESTORIL, PORTUGAL
WEDNESDAY, SEPTEMBER 04TH, 2013**



Written by:

Damien Féron

Diffusion:

Present and apologized participants

EFC WP4 Members

Roman Bender (EFC Scientific Secretary)

Dagmar Glänzer (Dechema)

Juliet Ippolito (Public Relation Officer)

Ines Honndorf (EFC Website)

EFC WP4 "NUCLEAR CORROSION"

Chairman	Damien Féron	CEA/Saclay	DEN/DANS/DPC/SCCME	Bât. 458 - PC 50	F-91191 GIF SUR YVETTE Cedex
Vice-Chairman	Thierry Couvant	EDF	DMMC - Les Renardières	BP46	F-77818 MORET SUR LOING Cedex
Secretary	Mylène Belgome	CEA/Saclay	DEN/DANS/DPC/SCCME	Bât. 458 - PC 50	F-91191 GIF SUR YVETTE Cedex



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Attendance:

Catherine Corbel	CEA, France
Robert Cottis	University of Manchester, United Kingdom
Thierry Couvant	EDF, France
Marie Dumerval	CEA, France
Damien Féron	CEA, France
Andraz Legat	ZAG, Slovenia
Jan Macak	Institute of Chemical Technology, Czech Republic
Susana Merino	CIEMAT, Spain
Valérie Parry	SIMaP, France
Stéphane Perrin	CEA, France
Juha Piippo	CORMET, Finlande
Philippe Prené	CEA, France
Olivier Raquet	CEA, France
Stefan Ritter	PSI, Switzerland
Nick Smart	AMEC, United Kingdom
Elsa Tcharkhtchi Gillard	CEA, France
Marc Vankeerberghen	SCK-CEN, Belgium

Apologies for absence received from:

Mylène Belgome	CEA, France
Odile De Bouvier	EDF, France
Frank Druyts	SCK-CEN, Belgium
Dolores Gomez Briceño	Ciemat, Spain
Catherine Guerre	CEA, France
Renate Kilian	AREVA NP GmbH, Germany
Valérie L'Hostis	CEA, France
Virginia Madina Arrese	Tecnalia, Spain
Anders Molander	Studsvik, Sweden
Cristiano Padovani	NDA, United Kindom

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* Document available only on the private space of the EFC WP4 website, for WP4 Members

- ✓ Annex 1 EFC WP4 poster award
- ✓ Annex 2 Slides presented by D. Féron*
- ✓ Annex 3 Lists of EFC WP4 members and of EFC WP4 friends*
- ✓ Annex 4 Slides on the Nuclear Corrosion Summer School*

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1. EFC WP4 POSTER PRICE AWARD

The EFC WP4 poster price award has been given for the first time by a jury composed of Stefan Ritter, Thierry Couvant and Damien Féron.

The recipient is Miss M. Maria Schvartzman from Centro de Desenvolvimento da Tecnologia Nuclear, Belo Horizonte (Bresil), for her poster entitled "Effects of Chloride and Sulphate Ions on the Corrosion of Alloy 800 Steam Generator Tube". With the diploma (see Annex 1), she received also two books funded by CEA (Nuclear corrosion science and technology published by Woodhead in 2012, and Corrosion issues in light water reactors, EFC series n°51, published by Maney in 2008).

2. OPENING AND APPROVAL OF THE AGENDA

D. Féron opened the Fall meeting and thanked the audience for coming.

Agenda was presented and approved, as no comments were made.

3. APPROVAL OF THE MINUTES OF THE STOCKHOLM FALL MEETING 2011

The minutes were sent by e-mail in March 2013. As no comment was received by D. Féron, these minutes are approved.

Since 2012 (Istanbul Fall meeting), the minutes are approved when no comment are received by e-mails (see Istanbul Minutes).

4. EFC INTERNAL MATTERS

A short presentation of the WP4 (history, objectives) was made.

D. Féron informed the participants that the members of the Working Party include delegates by the Member Societies of the EFC and individuals nominated by the Chairman. The persons interested in the WP4 but who are not member of an EFC Member Society and not nominated by the Chairman are "Friends". A specific item to become "Friend" has been included on the WP4 webpage.

Mylène Belgome made an update of the WP4 Members list which include now around 40 members (120 members in the previous list established in 2008). The list of the "Friends of the EFC WP4" has been sent by Ines Honndorf (Dechema, EFC Secretariat). These two lists are in Annex 3. They will be sent to Stefan Ritter for inclusion in the WP4 restricted area.

5. EFC WP4 AWARDS & EXCHANGES

The following proposals were discussed to "reinforce" the visibility of the WP4 (from the Stockholm and Istanbul meetings):

- ✓ Prizes : "Poster" and "Oral" communications.
- ✓ "Honorary medal" of the Nuclear Corrosion Working Party.
- ✓ Visits/exchanges of "young" engineers & researchers.

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5.1. Poster prize

The jury for the next poster award has been designated: Thierry Couvant, Stefan Ritter and Damien Féron.

Philippe Prené and Damien Féron (CEA) agreed to fund again one or two books and the diploma which will be given with the prize.

The rules for Poster prize will be included in the EFC webpage. Stefan Ritter will try to manage to include also the 2013 Award (name of the recipient, photography of the recipient and/or of the diploma, etc.).

The authors of the posters at the next EUROCORR WP4 session will be informed of the Poster prize and of the rules (with a link to the EFC website if these rules are included in the EFC WP4 site).

5.2. Oral prize

This prize has not been given this year, as it involves to advise the session's Chairs and to organise a meeting with the Chairs. It is planned for EUROCORR'2014 to inform the Chairpersons when they will be selected and to plan the meeting of the Oral prize jury.

The addition of a limit age was discussed again. This appeared to be too restrictive and to have the difficulty to know the age of all the participants. But everybody agreed with the fact that the Oral prize should be given to a "young researcher" (without precise limit).

The diploma will be made by CEA while Thierry Couvant agreed to fund few books for this award.

5.3. Honorary Medal

Everyone agreed to the necessity to find a sponsor. The research of such a sponsor is open to all members. Bob Cottis suggested giving the name of the sponsor to the award. No decision was taken. Damien Féron and Bob Cottis will find the words for an e-mail which will be sent to the WP4 members to ask for sponsorship.

5.4. Visits/exchanges of "young" engineers & researchers

The proposal made by Bo Rosborg in 2012 did not find sponsors up to date and is cancelled.

6. EFC WP4 PUBLICATIONS

One book (proceedings of the NUCPERF 2012, Special issue of European Physics Journal, Vol. 56, 2013) has been published on behalf of the WP4.

Several publications are planned:

- ✓ Green book "50 years of stress corrosion cracking of nickel based alloys" (from the presentations made during the "Jubilee day", January 26th, 2010): all papers/publications planned beginning 2014.
- ✓ Proceedings of the 5th International Workshop on "Prediction of Long Term Corrosion Behaviour in Nuclear Waste Systems" (2013), special issue of Corrosion Engineering, Science and Technology (2014)

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- ✓ Proceedings of the EUROCORR's Workshop "Radiation and corrosion in nuclear power plant" will be published as a special issue of the Journal of Nuclear Materials together with some papers presented during the WP4 and WP5 sessions. Thierry Couvant will inform the authors and agreed to be in charge of the publication.

7. EFC WP4 EVENTS

7.1. Past events

Besides EURCORR, only one event has been organised during the last year: NUCPERF 2012, which took place in Cadarache (France) on November 12-15th, 2012 and gathered 71 participants during 3 days. 33 oral presentations and 10 posters have been presented.

Damien Féron informed the members that a Winter School on "Modelling of corrosion" took place on last December (10-14th), as it was an EFC event (n°354) organized by INSTN/Saclay (France) et in which several EFC WP4 members were involved. Conferences in the morning and training on computers were the basic organisation of this event which has been followed by more than 40 participants (excluding the speakers).

7.2. Future events

The 5th International Workshop on "Prediction of Long Term Corrosion Behaviour in Nuclear Waste Systems (LongTermCor2013)" will be organized for the first time in Japan (October 06-10th, 2013). Today, 67 participants registered and around 60 oral and poster presentations are planned. The workshop will end with the visit of the Honokobe site. Participants are advised that two proposals are have been made for organizing the 6th Workshop (one by Canada - Frazer King, the other by France - Andra). These workshops (co-funded by Digby Macdonald and Damien Féron) have been organised from the beginning with the EFC WP4; the future organiser needs to have the agreement of the WP4. An ad-hoc committee may be created. Damien Féron will meet Digby Macdonald next week and will discuss with him of this issue.

Damien Féron informed the members that a new Spring School is organised by INSTN/Saclay (France) on "Modelling of corrosion for nuclear reactors", from March 31st to April 4th 2014 with the same organisation than the previous Winter School: conferences in the morning, training on computer in the afternoon. The content will include thermodynamics, atomistic and molecular modelling of corrosion, passivity with the point defect model, flow accelerated corrosion and stress corrosion cracking. Around 20 participants are expected.

After a large discussion, the Summer School "Nuclear corrosion" organisation is approved, based on a proposal prepared by Stefan Ritter and Andraz Legat (see Annex 4). It will take place in July or August 2015 in Slovenia. It will be based on the proposed programme. A task force for this Summer School is composed by Andraz Legat, Stefan Ritter and Damien Féron with the help of Bob Cottis. Stefan Ritter said he has already built a program for the school. A meeting is planned in Paris when Andraz Legat will come at CEA/Saclay (November-December). If needed, a conference call meeting will be organised.

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8. EFC WP4 WEBSITE

The WP 4 website is described and shown. It is updated frequently thanks to Stefan Ritter. The audience is encouraged to pass by from time to time and/or feel free to send events or any other useful information to [S. Ritter](#).

The address is: http://www.efcweb.org/Working_Parties-p-104085/WP_4.html.

A restricted area (for members only) has been added to the WP 4 website. The password provided only to members by Stefan Ritter on request.

D. Féron expressed his thanks to Stefan Ritter for taking care of and updating the WP4 website.

9. EUROCORRs

- ✓ EUROCORR'2014 will be held on 08-12th September in Pisa (Italy). A Nuclear Corrosion session will be organised as usual and it is planned to organise a Workshop with the WP10 (Microbial Corrosion) on MIC and sulphur effects in underground nuclear waste disposals. Contacts will be taken with the Chair of WP10 and SCK-CEN (Bruno Kustern) to get their advices.
- ✓ EUROCORR'2015 is planned on 06-10th September 2015 in Graz (Austria).
- ✓ EUROCORR'2016 is planned on 11-15th September 2016 in Montpellier (France).

10. MISSING ITEMS, CONCLUSION AND CLOSURE

The meeting is closed as no other point is raised.

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Enclosure 1:

- ✓ Annex 1 EFC WP4 poster award

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Poster award

of the

EFC WP4 "Nuclear Corrosion"

Eurocorr 2013

September 4, 2013 - Estoril, Portugal

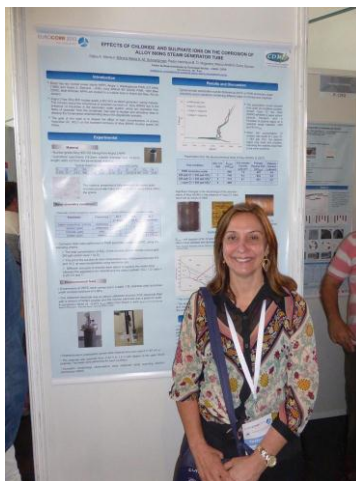


Effects of Chloride and sulphate ions on the corrosion of alloy
800 steam generator tube

by

Fabio A. Mansur, **Monica Maria A.M. Schwartzman**

Pedro Henrique B.O. Nogueira, Marco Antonio Dutra Quinan





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Enclosure 2:

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- ✓ Annex 2 Slides presented by D. Féron

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Enclosure 3:

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- ✓ Annex 3 Lists of EFC WP4 members and of EFC WP4 friends

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Enclosure 4:

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- ✓ Annex 4 Slides on the Nuclear Corrosion Summer School

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