

MINUTES OF THE WP4 FALL MEETING
HELD IN SHERATON ISTANBUL MASLAK HOTEL AND CONGRESS CENTER
ISTANBUL, TURKEY
WEDNESDAY, SEPTEMBER 12TH, 2012



Written by:

Benoît Gwinner

Diffusion:

Present and apologized participants

Roman Bender (EFC Scientific Secretary)

Juliet Ippolito (EFC 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

Attendance:

Odile De Bouvier	EDF, France
Damien Féron	CEA, France
James Grosvenor	Rolls-Royce + 10M3, United Kingdom
Benoît Gwinner	CEA, France
Renate Kilian	AREVA NP GmbH, Germany
Christina Lilja	SKB, Sweden
Raul Rebak	GE Global Research, USA
Stefan Ritter	PSI, Switzerland
Marion Roy	CEA, France
Marco Wehrfritz	GRS mbH, Germany

Apologies for absence received from:

Mylène Belgome	CEA, France
Robert Cottis	University of Manchester, UK
Thierry Couvant	EDF, France
Frank Druyts	SCK-CEN, Belgium
Miroslava Ernestova	NRI Rez, Czech Republic
Dolores Gomez Briceño	Ciemat, Spain
Catherine Guerre	CEA, France
Anders Jenssen	Studsvik, Sweden
Torill Marie Karlsen	HRP, Norway
Valérie L'Hostis	CEA, France
Stuart Lyon	Manchester University, UK
Jan Macak	Institute of Chemical Technology, Czech Republic
Virginia Madina Arrese	Tecnalia, Spain
Anders Molander	Studsvik, Sweden
Cristiano Padovani	NDA, UK
Ellen Pavageau	EDF, France
Bo Rosborg	Rosborg Consulting, Sweden
Peter Scott	Consultant, France
Hans-Peter Seifert	PSI, Switzerland
Nick Smart	AMEC Nuclear Holdings Limited, UK
Marc Vankeerberghen	SCK-CEN, Belgium
Ian Woolsey	Morson International, UK

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



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

Summary:

1. Opening and approval of the agenda	4
2. Approval of the minutes of the Stockholm 2011 Fall Meeting	4
3. EFC internal matters	4
4. EFC WP4 Awards & Exchanges	4
4.1. Poster prize	4
4.2. Oral prize	5
4.3. Honorary Medal	5
4.4. Visits/exchanges of "young" engineers and researchers	5
5. EFC WP4 publications	5
6. EFC WP4 events	6
7. EFC WP4 Website	6
8. EUROCORRs	6
9. Missing items, conclusion and closure	6

Enclosures:

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

- ✓ Annex 1 Agenda of the Istanbul meeting
- ✓ Annex 2 Slides presented by D. Féron at the Istanbul meeting*
- ✓ Annex 3 Proposed rules for Poster Prize, Oral Prize and Honorary Medal of the WP4*

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

1. OPENING AND APPROVAL OF THE AGENDA

D. Féron opened the Fall Meeting and thanked the audience for coming. The agenda was presented and approved, as no comments were made.

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

The minutes were sent by e-mail in July 2012. As no comment was received by D. Féron, these minutes were approved. From now, D. Féron proposed to approve the future minutes by e-mail (approved by the audience).

3. EFC INTERNAL MATTERS

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

An e-mail was sent by M. Belgome by mid-August to update the member list (120 members in the previous list established in 2008): 40 were not good and 35 responses were received. R. Kilian said she had not received the e-mail.

D. Féron presented the objectives of the next 3-year plan (2012-2014):

- ✓ To provide links between European teams and EU funded programs in nuclear corrosion field, with an opening on to the world
- ✓ To initiate and stimulate opportunities of exchanges on scientific and technical subjects related to nuclear corrosion, particularly on today's main nuclear research areas: waste systems, water reactors, generation IV and fusion reactors
- ✓ To promote corrosion science and technical developments by events such as seminars, workshops, publications, ...

Among other things, it is proposed to integrate a Workshop of the European PERFORM60 program to EUROCORR'2013.

4. EFC WP4 AWARDS & EXCHANGES

The following proposals were done to "reinforce" actions of the 3 year plan (from the Stockholm meeting):

- ✓ Prizes : one for "poster" and one for "oral" communications
- ✓ "Honorary medal" of the Nuclear Corrosion Working Party
- ✓ Visits/exchanges of "young" engineers and researchers

4.1. Poster prize

- ✓ In EUROCORR' 2012, 10 proposals for a poster presentation were done by the EUROCORR Scientific Comity. Only 03 authors accepted to present their work as a poster. Only 01 was effectively presented during EUROCORR'2012. As a consequence, the best poster price was not given in 2012.
- ✓ The criteria for the selection of the best poster were presented (approved).
- ✓ S. Ritter asked if there was a sponsor for the poster price. It seemed to be a good idea.
- ✓ It is asked if a name could be given to the poster price. Several suggestions were made: "Coriou Prize", "2013 Working Party on Nuclear Corrosion Prize". D. Féron is open to others suggestions.
- ✓ "The Jury for the award will be composed of three persons including the Vice-Chairman of the EFC WP4 (or a designed representative) and two other members chosen during the meeting of the EFC

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

WP4 that immediately precedes the conference or by an Email ballot prior the EUROCORR and organized by the Vice-Chairman". The choice of the Jury could appear to be too restricting and could evolve in the future.

- ✓ The proposed rules for Poster Prize are enclosed as an Annex to these minutes and are open to any evolution.

4.2. Oral prize

- ✓ The proposed rules for Oral Prize are similar to those for the Poster Prize. These rules are enclosed as an Annex to these minutes.
- ✓ "The Jury for the award will be composed of the Vice-Chairman of the EFC WP4 (or a designed representative) and the chair(s) of the nuclear corrosion session(s) and of the workshop(s) supported by the EFC WP4".
- ✓ The addition of a limit age was discussed. This appeared to be too restricting and it may be difficult to know the age of all the participants, but everybody agreed with the fact that the Oral Prize should be awarded to a "young researcher" (without precise limit).
- ✓ A suggestion was proposed for the prize (M. Roy): a cheque for buying an EFC scientific book. D. Féron will ask the new EFC Series editor to know if it is possible.

4.3. Honorary Medal

- ✓ The proposed rules for Honorary Medal of the WP4 are enclosed as an Annex to these minutes. The point 6 will be modified as follows: "The recipient of the award is designated by a Jury presided by the Chairman of the EFC WP4. The Jury shall consist of the Chairman and the Vice-Chairman of EFC WP4 and three members nominated by EFC WP4 members."
- ✓ Everyone agreed to the necessity to find a sponsor. The research of such a sponsor is open to all members. General Electric could agree (P. Rebak), but D. Féron would prefer a European Company. R. Kilian (AREVA) proposed to ask their French colleagues.
- ✓ A name for the Honorary Medal has to be chosen; "Coriou Medal" was proposed.
- ✓ D. Féron proposed to discuss these points (sponsor and name) during the next Spring Meeting of the EFC WP4 (see point 6.).

4.4. Visits/exchanges of "young" engineers and researchers

- ✓ A Swedish proposal (B. Rosborg) could finally not be done in 2012. It is reported to 2013.
- ✓ D. Féron suggested exchanges in relation with the Société Française d'Energie Nucléaire (SFEN).
- ✓ R. Kilian explained that such visits/exchanges (in general) are not successful because of the language difficulties and the time cost.

5. EFC WP4 PUBLICATIONS

In addition to those presented in the slides, S. Ritter mentioned that a special issue will be edited in Corrosion Engineering Science and Technology at the end of 2012.

The following publication is cancelled: "Corrosion issues in nuclear industry today", Springer Publishing, (Th. Couvant, S. Ritter and B. Kursten), then called "Degradation, modelling and mitigation of SCC in LWRs".

EFC WP4 "NUCLEAR CORROSION"

Chairman	Damien Féron	CEA/Saclay	DEN/SAC/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	Myliène Belgome	CEA/Saclay	DEN/SAC/DPC/SCCME	Bât. 458 - PC 50	F-91191 GIF SUR YVETTE Cedex

6. EFC WP4 EVENTS

- ✓ The next annual ECG-COMON meeting will be organized in June 10-11th 2013 in Paris. S. Ritter proposed that the next Spring Meeting will be organized the afternoon. Two main subjects will be discussed: the Medal awards (see point 4) and the organization of the Summer School (see below).
- ✓ The dates of NUCPERF 2012 given in the slide n°15 are false. The right ones are November 12-14th, 2012.
- ✓ 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).
- ✓ Summer School "Nuclear Corrosion": A. Legat (Slovenia) offered to organise the 2nd Summer School. For the choice of the date, he explained that if the decision to organize such a Summer School is taken in 2012, the School could not be organized before 2014 (August?). S. Ritter said he has already built a program for the school. The organization this Summer School "Nuclear Corrosion" will be specifically discussed during the next Spring Meeting.

7. EFC WP4 WEBSITE

The WP 4 website is described and shown. It is updated frequently thanks to S. 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 WP4 website. The password provided only to members is given by S. Ritter on request.

D. Féron expressed his thanks to S. Ritter for taking care of the WP4 website.

8. EUROCORRS

- ✓ EUROCORR'2013, 01-04 September, Lisbon (Portugal). D. Féron awaits proposals during the next months concerning the organization of a special Workshop during EUROCORR'2013.
- ✓ EUROCORR'2014, 08-12 September, Pisa (Italy)
- ✓ EUROCORR 2015, 06-10 September 2015, Graz (Austria)

9. MISSING ITEMS, CONCLUSION AND CLOSURE

The meeting is closed as no other point is raised.

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



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

Enclosure 1:

- ✓ Annex 1 Agenda of the Istanbul Meeting

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



Fall meeting of the Nuclear Corrosion Working Party (EFC WP4)

Wednesday, 12 September 2012 (16h10-18h)

Sheraton Istanbul Maslak Hotel and Congress Center, Room "Mars"
Istanbul, Turkey

(Information are given on the Eurocorr website <http://www.eurocorr2012.org>)

The proposed agenda is the following:

1. Opening of the meeting, apologies for absences and approval of the agenda
2. Approval of the minutes of the Stockholm 2012 fall meetings
3. EFC WP4 internal matters
 - Short presentation of the EFC WP4
 - The 3 years plan
 - WP4 member list
4. EFC WP4 Awards & Exchanges
5. EFC WP4 Publications
 - Books & special issues already published
 - Future publications
6. EFC WP4 past events
7. EFC WP4 future events
8. EFC WP4 website
9. EUROCORR's
10. Missing items
11. Closure



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

Enclosure 2:

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

- ✓ Annex 2 Slides presented by D. Féron at the Istanbul meeting

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

Welcome

to the

EFC WP4 "Nuclear Corrosion" Fall Meeting

Damien Féron, Chairman of the WP4
Thierry Couvant, Vice-Chairman of the WP4

Mylène Belgome, secretariat

Apologies for absence received from:

- * Mylène Belgome (CEA, France)
- * Robert Cottis (University of Manchester, UK)
- * Thierry Couvant (EDF, France)
- * Valérie L'Hostis (CEA, France)
- * Catherine Guerre (CEA, France)
- * Hans-Peter Seifert (PSI, Switzerland)
- * Anders Jenssen (Studsvik, Sweden)
- * Marc Vankeerberghen (SCKCEN, Belgium)
- * Miroslava Ernestova (NRI Rez, Czech Republic)
- * Torill Marie Karlsen (HRP ?, Norway)
- * Peter Scott (Consultant, France)
- * Madina Arrese, Virginia (Tecnalia, Spain)
- * Catherine Guerre (CEA, France)
- * Macak Jan (Institute of Chemical Technology, Czech Republic)
- * Anders Molander (Studsvik, Sweden)
- * Druyts Frank (SCKCEN, Belgium)
- * Ellen PAVAGEAU (EDF, France)
- * Bo Rosborg (, Sweden)
- * Nick Smart [Nick.Smart@amec.com]
- * Dolores Gomez Briceño (Ciemat, Spain)
- * Stuart Lyon (Manchester University, UK)
- * Ian Woolsey (Morson International, UK)
- * PADOVANI, Cristiano (NDA, UK)

1. Opening and approval of the agenda



- 1. Opening of the meeting, apologies for absences and approval of the agenda**
- 2. Approval of the minutes of the Stockholm 2011 fall meeting**
- 3. EFC WP4 internal matters**
 - Short presentation of the EFC WP4
 - WP4 member list
 - The 3 years plan
- 4. EFC WP4 Awards & Exchanges**
- 5. EFC WP4 Publications**
 - Books & special issues already published
 - Future publications
- 6. EFC WP4 past events**
- 7. EFC WP4 future events**
- 8. EFC WP4 website**
- 9. EUROCORR's**
- 10. Missing items**
- 11. Closure**

2. Approval of the minutes of the Stockholm Meeting



[Minutes of the WP4 fall meeting \(2011\)](#)

3. Internal matters: Short presentation of the EFC WP4



Objectives of the WP4 "nuclear corrosion"

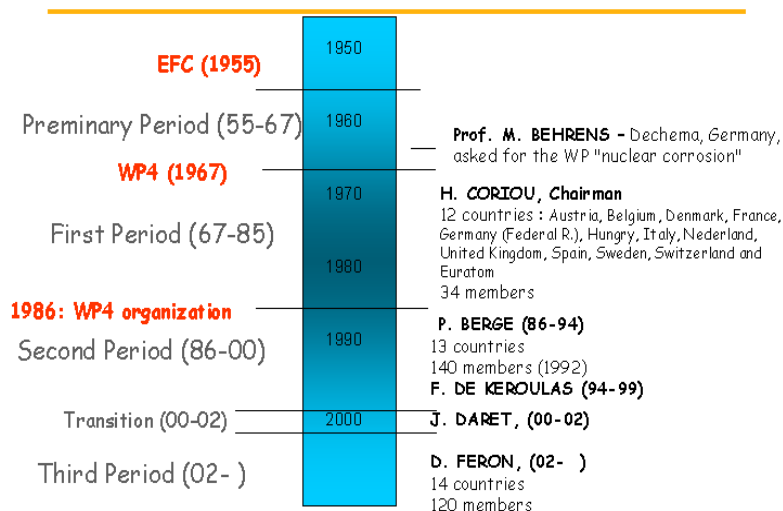
- To provide links between European teams in nuclear corrosion field, with an opening on to the world
- To initiate and stimulate opportunities of exchanges on scientific & technical subjects related to nuclear corrosion, particularly on today main nuclear research areas: waste systems, water reactors, generation Iv and fusion reactors
- To promote corrosion science and technical developments by events such as seminars, workshops, publications, ...



3. Internal matters: Short presentation of the EFC WP4



Timeline of the WP4 "nuclear corrosion"



3. Internal matters: Short presentation of the EFC WP4

Organisation of the WP4 "nuclear corrosion"



- A Chairman (Damien Féron, CEA - France)
- A vice-Chairman (Thierry Couvant, EDF - France)
- Members : *"In addition to delegates proposed by the Member Societies, the Chairman may propose and approve with the consent of the WP, the nomination and re-election of WP members;"*
- One or Two meetings: "Eurocorr meeting" & "Spring meeting"
- Task forces
- Publications
- Eurocorr sessions & workshops
- Workshops

- webpage: <http://www.efcweb.org/Working+Parties/WP+4.html> -

3. Internal matters: EFC WP4 member list



- Email send by Mylène Belgome mid-August to update the member list.
- Response before September 5
- 120 members in the previous list established in 2008

EFC WP4 "NUCLEAR CORROSION"
MEMBERS' LIST UPDATING FORM

Please, fulfill legibly this form and send it back to Mylène Belgome
best before **September 05th, 2012**.
Fax: +33 1 69 08 15 86
E-mail: mylene.belgome@cea.fr

Family name* _____
First name* _____
Company* _____
Address _____

Phone* _____ Fax _____
E-mail* _____

* to be filled necessarily

☐ I still want to be a Member of the EFC WP4 "Nuclear Corrosion"
☐ Yes ☐ No

☒ If no, would you like to introduce a colleague instead (please send back another form with his/her information)?
☐ Yes (family name and first name) _____
☐ No

Date _____ Signature _____

EFC WP4 "Nuclear Corrosion"
Chairman: Damien Féron CEA/Safety DEN/DANS/DPC/SCCME BSL 408 - PC 95 F-91191 SPF SUR YVETTE Cedex
Vice-Chairman: Thierry Couvant EDF DEN/DANS/DPC/SCCME BSL 408 - PC 95 F-91191 SPF SUR YVETTE Cedex
Secretary: Mylène Belgome CEA/Safety DEN/DANS/DPC/SCCME BSL 408 - PC 95 F-91191 SPF SUR YVETTE Cedex



Objectives of the 3-years plan (2012-14)

- To provide links between European teams and EU funded programs in nuclear corrosion field, with an opening on to the world
- To initiate and stimulate opportunities of exchanges on scientific & technical subjects related to nuclear corrosion, particularly on today main nuclear research areas: waste systems, water reactors, generation IV and fusion reactors
- To promote corrosion science and technical developments by events such as seminars, workshops, publications, ...



Proposals to "reinforced" actions of the 3 year plan (from the Stockholm meeting)

Prizes : one for "poster" and one for "oral" communications (eligible only if the paper is in the proceedings)

"Honorary medal" of the nuclear corrosion working party

Visits / Exchanges of "young" engineers & researchers

4. EFC WP4 Publications



EFC WP4 publications

In EFC series (green books)

Other books & issues published by EFC WP4



WP4 Meeting - September 12, 2012 - Istanbul, Turkey

D. Féron

11/

4. EFC WP4 Publications



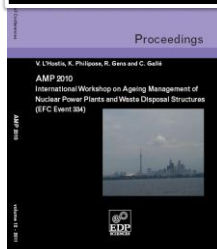
EFC WP4 2011 publications

EFC Series (Green Book): EFC #59: "Sulphur Assisted Corrosion in nuclear disposal systems" (Editors: Bruno Kursten & ...): Published August 2011, 192 pages,



Proceedings of the AMP 2010 Workshop (The European Physical Journal volume 12 – 2011)

Free copies available by WP4 members on request



AVAILABLE AT THE MANEY BOOTH DURING EUROCORR 2012

Proceedings of the 4th International Workshop on Long Term Prediction of Corrosion Damage in Nuclear Waste Systems, Belgium, June 2010.



WP4 Meeting - September 12, 2012 - Istanbul, Turkey

D. Féron

12/

4. EFC WP4 future Publications



- **Green book series:** Maney was the publisher and resigned late 2011 / After several meetings and contacts with publishers, Woodhead (UK) is the new EFC publisher, accepted by the BoA and GA.

- **Publications in preparation**

- A- Green book "50 years of stress corrosion cracking of nickel based alloys" (from the presentations made at the "Jubilee day - January 26, 2010) - planned by the end of 2012
- B- "Corrosion issues in nuclear industry today", Springer Publishing, (Thierry Couvant - Stefan Ritter & Bruno Kursten.) « Degradation, modelling and mitigation of SCC in LWRs » ?
- C- 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)

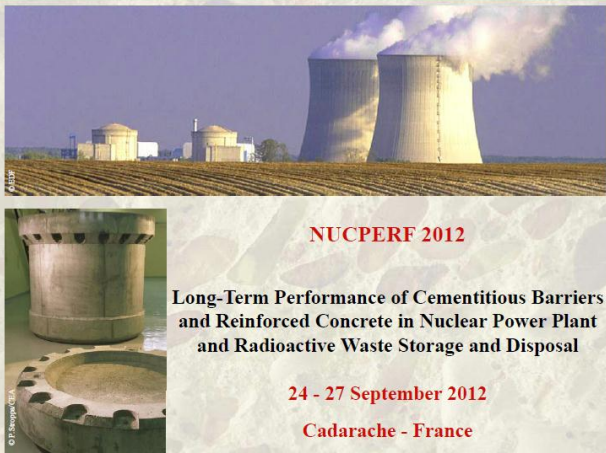
→ Others books or special issues (?)

6. EFC WP4 future events



- **NUCPERF 2012, Long-Term Performance of Cementitious Barriers and Reinforced Concrete in Nuclear Power Plant and Radioactive Waste Storage and Disposal** / 12-14 November 2012 / Cadarache - France (EFC event 351)
- ***Next annual ECG-COMON meeting,***
- **5th International Workshop on "Prediction of Long Term Corrosion Behaviour in Nuclear Waste Systems (LongTermCor2013)",**
2013-Japan

Summer School on "Nuclear Corrosion"



NUCPERF 2012

Long-Term Performance of Cementitious Barriers and Reinforced Concrete in Nuclear Power Plant and Radioactive Waste Storage and Disposal

24 - 27 September 2012

Cadarache - France

NUCPERF 2012 Presentation

1

Expected topics

a) Performance and safety assessment

Physical and chemical behaviour of cementitious system
Data treatment and model parameters
Uncertainty management
Use of analogues

b) Aging Management of Nuclear Power Plant

Monitoring and assessment
Sensors and NDE methods
Impact of aging and chemical degradation on safety margins
Modelling remaining service life of NNP structures

c) Test approaches

Accelerated tests
Parameters measurements
Upscaling and field application of laboratory tests

d) Physical, chemical and mechanical behaviour

Experimental characterization
Coupled modelling approaches
Thermal and radiolytic effects
Transport in unsaturated systems
Carbonation
Impact of cracking

e) Metallic corrosion

Anaerobic corrosion
Thermal and radiolytic effects
Environmental effects
Stability of passive layers
Consequences of corrosion on concrete performance
Corrosion in blended cements and new binders
Modelling

- Panel discussion (1/2 hour) after each session and at the end of the workshop a half-day session of restitution and general discussion about how to incorporate this knowledge in order to improve the performance and design of new facilities could be organized

Registration, accommodation and venue

Registration and Accommodation

The registration form available on the website should be completed and sent not later than 7 September 2012 to the conference office. The registration will be confirmed by the organising committee.

- Fees will be asked to cover meals, coffee breaks and all practical arrangements during the workshop.
- Each participant will cover its own travel and accommodation expenses.
- Room reservations will be made through the conference office (nucperf2012@cea.fr).

Venue

The workshop will be held at the "Château de Cadarache". This old castle from the 13th century is located in the south of France at 40 km from Aix-en-Provence and 70 km from Marseille. It is the "Maison d'hôtes" of the CEA Cadarache Centre.



6. EFC WP4 future events

5th International Workshop on "Prediction of Long Term Corrosion Behaviour in Nuclear Waste Systems (LongTermCor2013)" - 6-10 October 2013, EFC event N°360 in Asahikawa, Hokkaido, Japan

- Contact: Dr. Eng. ASANO Hidekazu, Radioactive Waste Management Funding and Research Center Pacific Marks, Tsukushima, Japan
- Agreement of Lyon Stuart to publish the proceedings in a special issue of *Corrosion Engineering, Science and Technology*.
- Organised by JSCE
- Visit of the the JAEA's underground research laboratory for high-level radioactive waste disposal (Honorobe)
- The second circular next November 2012.



Venue

The workshop will be held at the Asahikawa City International Conference Center of the Taseki Crystal Hall. This modern complex hall consists of Concert Hall, City Museum and the conference center, which is located in the center of the city of Asahikawa, just behind the central railway station across the Chubetsu River.

Asahikawa is located at the center of Hokkaido, 130km from Sapporo (the capital city of Hokkaido) to the northeast. This second largest city in Hokkaido is surrounded by mountains and rivers. It is known as a beautiful city with four distinctive seasons with variety of events, art, food, and nature of Hokkaido.

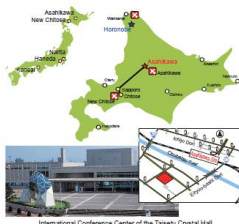


The conference center, Taseki Crystal Hall, is easily accessible, about 10 min. walk from the central railway station. You can find more information about the hall on the website below:

http://asahikawa-iccc.jp/ica_english.php?Template=Item_Template.html&Item_id=255

Registration and accommodation

The registration fee and accommodation form will be announced in the second circular, which will be distributed in November 2012. Members of EFC, JSCC and AESJ are specially treated for the fee.



Organized by



Supported by

European Federation of Corrosion (EFC)

Division of Nuclear Fuel Cycle and Environment (NUCE) of the Atomic Energy Society of Japan (AESJ)

Website

The website of the workshop is under construction. It will be available at the same time of the second circular's delivery.



Asahikawa,
Hokkaido, Japan

October 6-10, 2013

5th International Workshop on Long-Term Prediction of Corrosion Damage in Nuclear Waste Systems



Venue

International Conference Center of the Taseki Crystal Hall
Asahikawa City

http://asahikawa-iccc.jp/ica_english.php?Template=Item_Template.html&Item_id=255

WP4 Meeting - September 12, 2012 - Istanbul, Turkey

D. Féron 1



Scope

Currently, about 13.5% of the world's electricity is provided by nuclear power. In OECD countries almost 24% of it comes from nuclear power and 54% in the EU countries. And the use is increasing. Most reactors on ordered or planned are in the Asian countries, while there are major plans for new unit in the US and Russia.

Besides producing electricity for the benefit of society, nuclear power is also leaving a legacy of long-lived radioactive residues for which a safety long-term solution has to be provided to protect the many generations to come.

On the other hand, the nuclear emergencies at Fukushima No.1 Nuclear Power Plant following the Great East Japan Earthquake, March 11, 2011, raised questions among experts and general public over the safety of the use of the nuclear energy including the issue of final disposal of radioactive wastes.

Among the options considering how to deal with radioactive wastes, geological disposal is the one recommended at the international understanding. Observing the degradation process and predicting the lifetime of the metallic barrier in a robust and reliable manner represents one of the greatest scientific and technical challenges for the mankind structures, since the required period for their integrity largely exceeds that of any industrial application.

This issue was already explored during four previous successful workshops (Cadarache, France, 2001; Nice, France, 2004; Pennsylvania State University, USA, 2007 and Bruges, Belgium, 2010).

The main objective of the workshop is to get together scientists and engineers from various countries who are developing high-level nuclear waste disposal technologies, with the goal of promoting scientific and technical exchanges concerning long term behavior of metallic containment materials and engineered barrier systems. In particular, the workshop will compare the approaches that are being developed worldwide for predicting long-term corrosion phenomena, including corrosion strategies for interim storage and geological disposal.

This workshop is organized by the Japan Society of Corrosion Engineering (JSCE) and it is supported by the European Federation of Corrosion (EFC), Nuclear Corrosion Working Party (WP4) as of EFC event No.360.

Furthermore, the workshop is supported by the Division of Nuclear Fuel Cycle and Environment (NUCE) of the Atomic Energy Society of Japan (AESJ).

Topics

- The workshop will address the main items related to the long-term corrosion behavior, with a major emphasis on:
 - Overview of the different (national) programs
 - Similarities, common challenges, different approaches,
 - Legal issues
 - Retrievability
 - Experimentation (corrosion behavior of candidate materials for waste packages)
 - Laboratory test
 - Full-scale demonstration
 - In-situ test
 - Methodology
 - Modeling and long-term prediction
 - Behavior and Mechanism
 - Fundamentals of prediction
 - Long-term prediction
 - Numerical analysis and simulation
 - Archaeological artifact and natural analogue
 - long-term corrosion
 - Regulatory issues

Proceedings

- A book of abstract will be distributed to the participants at the beginning of the workshop.
- Proceedings is planned to be published, after reviewing, as a special issue of 'Corrosion Engineering Science and Technology' after the workshop.

Key dates

June 15, 2012	1st Circular: Announcement and call for papers
November 2012	2nd Circular and open of website
April 30, 2013	Deadline for abstracts
May 2013	Notification of paper acceptance
June 30, 2013	Deadline for registration
October 7-11, 2013	Workshop

Local organizing committee

Kazuhisa Azumi
Hokkaido Univ., Japan
Hidekazu Asano
RWMC, Japan
Masato Kobayashi
RWMC, Japan
Naoki Taniguchi
JAEC, Japan
Hiroyuki Inoue
Osaka Prefecture Univ., Japan
Junichi Tani
CRIEPI, Japan
Gen Nakayama
IH, Japan

Scientific Committee

Bruno Kuretsen
Frank Droyts
Robert Gens
Damien Féron
Digby D. Macdonald
Tae M. Ahn
Carmen Andrade
Hidekazu Asano
Naoki Taniguchi
Gustavo Duffo
En-Hou Han
Lawrence Johnson
Fraser King
HyukSang Kwon
Timo Saario
Lars Werne
Cristiano Padovani

SOCKEN, Belgium
SOCKEN, Belgium
NIRAS/ONDRAF, Belgium
CEA, France
Pennsylvania State University, USA
NRC, USA
IETCC, Spain
RWMC, Japan
JAEC, Japan
CNEA, Argentina
MIR, China
NAGRA, Switzerland
Integrity Corrosion Consulting Ltd., Canada
KAIST, Korea
VTT, Finland
Uppsala University, Sweden
NCA, UK

Conference office

It will be announced in the second circular.

WP4 Meeting - September 12, 2012 - Istanbul, Turkey

D. Féron 1



Summer School "nuclear corrosion"

- Proposed in Maastricht (2006)
- WP4 Spring Meeting 2008 decisions
 - Target: young scientists and engineers
 - Topics: 3-days general session + 2-days focus on specific item (NPP, Gen IV, Nuclear Waste, ...)
 - The event will be organised in relation with others (ENEN / European Nuclear Education Network)
 - Task Force "Summer School": B. Kursten (Chair), B. Cottis, D. Féron, A. Legat, St. Ritter, D. Tice, P. Wood, M. Le Calvar
 - It is planned to have one event every (x) years
- Planned initially in Belgium, SCK-CEN resigns (Spring meeting 2009)
- Andraz Legat (Slovenia) offered to organise the 2nd summer school → the first edition (?)



• EFC WP4 page (on the EFC website)

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

- Items on the web site:
 - ✓ **WP4 activities:** reports on WP4 activities and presentation of the WP4 at OCDE/NEA
 - ✓ **WP4 groups:** ECG-COMON
 - ✓ **Minutes of the WP4 meetings** (without overheads)
 - ✓ **Future events/workshops of the WP4**
 - ✓ **WP4 recent publications**
 - EFC series
 - Other publications
- **EFC website has been "renewed"**
New presentation - easier to use
- **Stefan Ritter** in charge of the WP4 web page: many thanks for the work done
- New : a "private domain"

8. Eurocorr



- **EUROCORR 2012** "Safer World through better Corrosion Control" 9-13 September, Istanbul, Turkey.
 - **Workshop** "Mechanisms of Environmental Assisted Cracking" (WP4, 5, 9, 13, 15, 17) : 11 papers / one day workshop
 - **Nuclear corrosion session**: 15 papers (12 orals and 3 posters)
- **EUROCORR 2013** "Corrosion control for a blue sky" 1-5 September, Estoril, Portugal
- **EUROCORR 2014** "Improving Materials Durability: from cultural Heritage to industrial Applications" 8-12 September, Pisa, Italy
- **EUROCORR 2015** "Earth, Fire, Water, Air- Corrosion is Everywhere" 6-10 September 2015, Graz, Austria.

9. Missing items



Some points to discuss?

...



Thank you
for your participation
to the fall
EFC WP4 "Nuclear Corrosion" Meeting
Istanbul, 2012



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

Enclosure 3:

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

- ✓ Annex 3 Proposed rules for Poster Prize, Oral Prize and Honorary Medal of the WP4

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

**PROPOSED RULES for the ORAL PRIZE of
the WORKING PARTY on NUCLEAR CORROSION of the EFC (EFC WP4)**

AWARD

The Working Party on Nuclear Corrosion of the European Federation of Corrosion (EFC WP4) establishes a new award for the best oral communication presented in the nuclear corrosion session and in the workshops supported by the EFC WP4 at each EUROCORR Conference. The aim of the new award is to encourage the submission of more communications of high quality and the submission of the associated paper in the EUROCORR proceedings by corrosion scientists and engineers, including PhD students, post-doctoral researchers, etc.

The Prize, consisting of a certificate (*and the sum of XX€, if we have sponsors???*) will be awarded each year to the scientist or the engineer who, in the opinion of the Jury, has made the most worthy presentation on nuclear corrosion during the nuclear corrosion session(s) or the workshop(s) supported by the EFC WP4 at EUROCORR.

SELECTION OF THE AWARD WINNER

The Jury for the award will be composed of the Vice-Chairman of the EFC WP4 (or a designed representative) and the chair(s) of the nuclear corrosion session(s) and of the workshop(s) supported by the EFC WP4.

The eligible authors should have the full paper of their presentation included in the EUROCORR proceedings and should present themselves the oral communication.

The criteria to be used in selecting the winner will include:

- 1) The scientific/technical contribution to the field of corrosion covered by the work presented in the paper and in the oral presentation;
- 2) The clarity with which important concepts are conveyed orally during the presentation;
- 3) The quality of the verbal presentation and of the answers to the questions by the presenter.

PRESENTATION OF THE AWARD

The presentation of the Award will take place at the end of the nuclear corrosion session(s) or workshop(s) supported by the EFC WP4.

FORMER RECIPIENTS OF THE EFC WP4 ORAL PRIZE

The first winner will be selected during.

**PROPOSED RULES FOR the POSTER PRIZE of
the WORKING PARTY on NUCLEAR CORROSION of the EFC (EFC WP4)**

AWARD

The Working Party on Nuclear Corrosion of the European Federation of Corrosion (EFC WP4) establishes a new award for the best Poster presented in the nuclear corrosion session and in the workshops supported by the EFC WP4 at each EUROCORR Conference. The aim of the new award is to encourage the submission of more posters of high quality and the submission of the associated paper in the EUROCORR proceedings by corrosion scientists and engineers, including PhD students, post-doctoral researchers, etc.

The Prize, consisting of a certificate (*and the sum of XX€, if we have sponsors???*) will be awarded each year to the scientist or engineer who, in the opinion of the Jury, has made the most worthy presentation during the poster sessions at EUROCORR.

SELECTION OF THE AWARD WINNER

The Jury for the award will be composed of three persons including the Vice-Chairman of the EFC WP4 (or a designed representative) and two other members chosen during the meeting of the EFC WP4 that immediately precedes the conference or by an Email ballot prior the Eurocorr and organized by the Vice-Chairman.

The eligible authors should have the full paper of their presentation included in the EUROCORR proceedings and should be present by their posters during the relevant poster session.

The criteria to be used in selecting the winner will include:

- 1) The scientific/technical contribution to the field of corrosion covered by the work presented in the paper and in the poster;
- 2) The clarity with which important concepts are conveyed visually by the poster;
- 3) The quality of the verbal presentation by the author during the poster session.

PRESENTATION OF THE AWARD

The presentation of the Award will take place at the start of the EFC WP4 Session or supported workshop on the morning following the final poster session.

FORMER RECIPIENTS OF THE EFC WP4 POSTER PRIZE

The first winner will be selected during EUROCORR 2012 in Istanbul.

RULES FOR THE HONORARY MEDAL (AWARD)
of
THE WORKING PARTY ON NUCLEAR CORROSION
of
THE EUROPEAN FEDERATION OF CORROSION
(Founded and presented by the Working Party on Nuclear Corrosion of the European Federation of Corrosion)

AWARD

1. The purpose of the Honorary Medal (Award) of the Working Party on Nuclear Corrosion of the European Federation of Corrosion (EFC WP4) is to recognise achievements by a scientist, an engineer, or group of scientists or engineers, in the application of corrosion science in the nuclear field. The recipient(s) must be of a nationality(ies) corresponding to one, or more, of the Member Societies of the EFC *and the work must be conducted within a European country (?)*.
2. The award consists of a medal (*if possible – sponsors / award*) and a diploma.
3. The Medal is sponsored by EFC WP4. The medal has been donated by *sponsor(s) name(s)*. The diploma is donated by the chairman of the EFC WP4. The sum of XX€ will be provided from *sponsors names*.
4. The Honorary Medal of the Working Party on Nuclear Corrosion of the European Federation shall be awarded in principle every year preferably on the occasion of the EFC WP4 meeting or session during the EUROCORR.
6. On the occasion of the award ceremony the recipient of the Honorary Medal of the Working Party on Nuclear Corrosion of the EFC will give a lecture related to the work for which the medal was attributed.

DESIGNATION OF AWARD RECIPIENT

7. Serving members of the EFC Board of Administrators, the Chairman of the Science and Technology Advisory Committee (STAC), the Chairman, the Vice-Chairman and the Secretary of the Working Party on Nuclear Corrosion of the EFC are not eligible to be awarded the Honorary Medal of the Working Party on Nuclear Corrosion of the European Federation.
8. The recipient of the award is designated by a Jury presided by the Chairman of the EFC WP4. The Jury shall consist of the Chairman and the Vice-Chairman of EFC WP4 and three members nominated by EFC WP4 members. The Jury members stay in office until a recipient has been designated and has accepted the award.

9. The Jury meets in person, normally at the occasion of an EFC WP4 meeting preceding the date of the award ceremony by at least 3 months.
10. The decision of the Jury is by majority vote of the members present. The decision of the Jury is final. The STAC is informed of its choice.
11. Any member of EFC WP4 shall make proposals to the Jury for recipients of the award. The WP4 Chairman or Secretary should ask EFC WP4 members for proposals. These Proposals have to be addressed to the EFC WP4 Chairman. Proposals must be received at least one month prior to the Jury meeting. They are forwarded to the Jury members at least one month ahead of the meeting of the Jury. In its selection of the award winner the Jury is restricted to the proposals received.
12. If no suitable proposals have been received, the Jury may decide not to attribute the medal in a given year.