



European Federation of Corrosion Working Party 4 "Nuclear Corrosion"

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EUROPÄISCHE FÖDERATION KORROSION
EUROPEAN FEDERATION OF CORROSION
FEDERATION EUROPEENNE DE LA CORROSION

- The European Federation of Corrosion is a voluntary association of non-profit-making scientific and technical societies and associations.
- The purpose of the Federation is to contribute to the general advancement of the science of corrosion and of the protection of materials by promoting cooperation in Europe between scientific and technical societies and associations devoted to these areas of activity and by collaborating with similar associations throughout the world.
- The EFC has been founded in 1955
- Annual congress: EUROCORR's



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- The 29 EFC Member Societies are from 24 European countries (2005).
- The main work of the Federation is conducted through 19 Working Parties of which 16 are currently active.
- The administration of the Federation is in the hands of the Board of Administrators and the scientific & technical affairs are the responsibility of the Science and Technology Advisory Committee
- The day-to-day operation of the EFC is managed through the General Secretariat with offices in the UK, Germany and France.



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, ...

EFC**WP4****Nuclear Corrosion****EFC**

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Timeline of the WP4 "nuclear corrosion"

EFC (1955)	1950	
Preliminary Period (55-67)	1960	Prof. M. BEHRENS - Dechema, Germany, asked for the WP "nuclear corrosion"
WP4 (1967)	1970	H. CORIOU, Chairman 12 countries : Austria, Belgium, Denmark, France, Germany (Federal R.), Hungary, Italy, Nederland, United Kingdom, Spain, Sweden, Switzerland and Euratom 34 members
First Period (67-85)	1980	
1986: WP4 organization	1990	P. BERGE (86-94) 13 countries 140 members (1992) F. DE KEROUHAS (94-99)
Second Period (86-00)	2000	J. DARET, (00-02)
Transition (00-02)		
Third Period (02-)		D. FERON, (02-) 14 countries 120 members

EFC

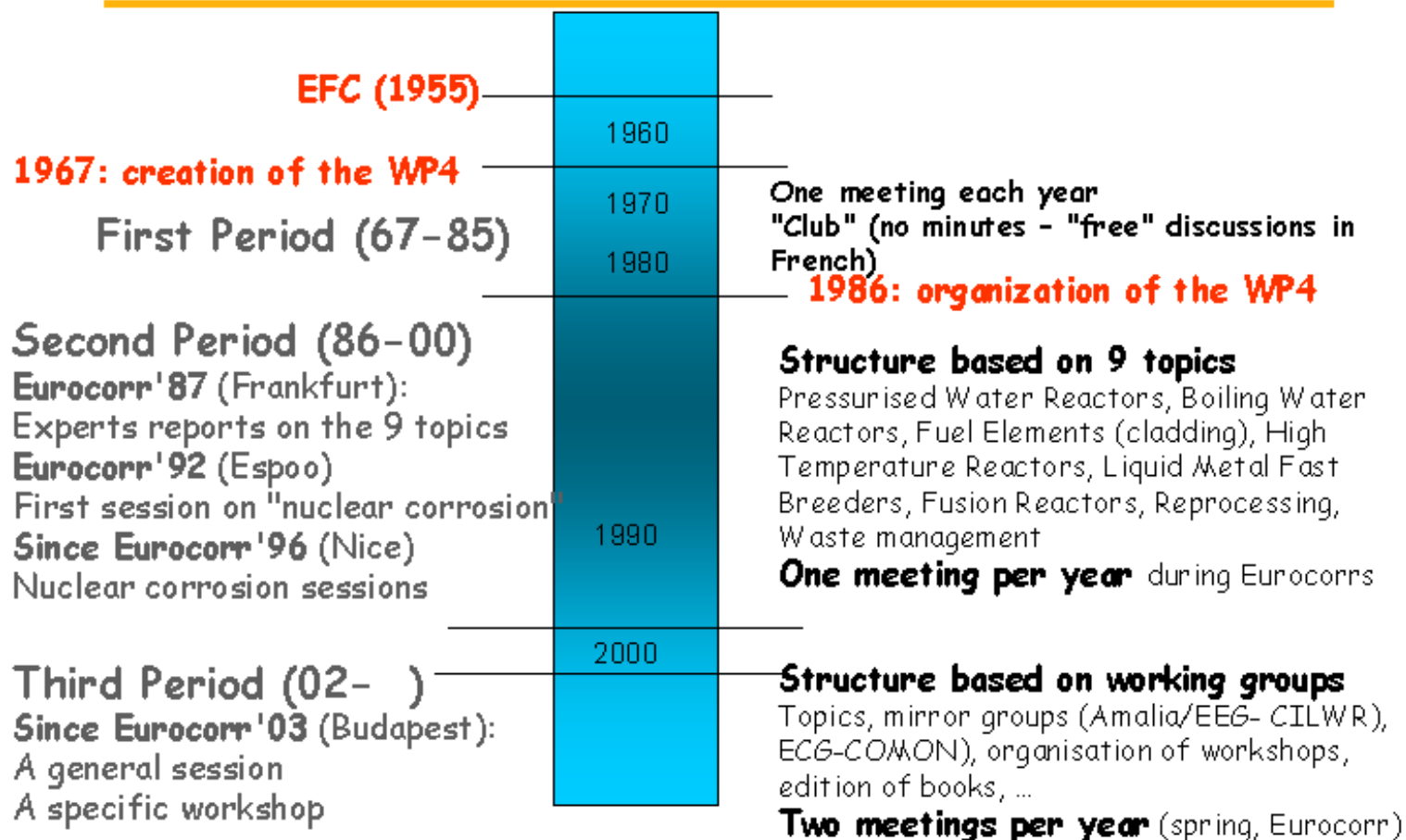
WP4

Nuclear Corrosion

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Evolution of the organisation / Eurocorr WP4 "nuclear corrosion"



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WP4

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*WP4 contributions to nuclear industry evolution
Specific Workshops / Books*

1991 Handeck (Switzerland) workshop
"Corrosion problems related to nuclear waste storage"

2001 Cadarache (France) workshop
"Prediction of long term corrosion behaviour in nuclear waste systems (CEA & Penn. State U.) - EFC Event N° 256
Followed by the Nice workshop on the same item during Eurocorr'2004

2004 Leuven (Belgium) Seminar
"High temperature electrochemistry in light water reactor's"
EFC event N° 279

EFC series N°1

Corrosion in the Nuclear Industry

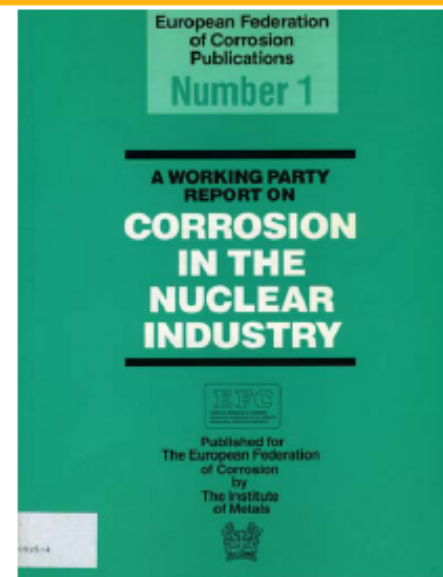
EFC series N°7

Corrosion problems related to nuclear waste disposal

EFC series N°36

Prediction of long term corrosion behaviour in nuclear waste systems

Proceedings of Nice workshop (ANDRA)





Organisation of the WP4 "nuclear corrosion"

- A chairman, a Scientific Secretary and a Secretary
- A Steering Committee (two delegates per country nominated by EFC member Societies)
- Personal members (150, 30 active members)
- Two "general" meetings
 - "Eurocorr meeting" in September
 - "Spring meeting"
- Active Groups
- Publications



Organization of the WP4 Nuclear Corrosion

Task forces (Working groups)

1. Management (chairman, scientific secretary, secretary)
2. Corrosion and extension of life time of existing power plants (D. Gomez Briceno - CIEMAT, Spain)
3. **Prediction of long term corrosion in nuclear waste repositories**
4. **Concrete behaviour in NPP and waste facilities**
5. **Electrochemistry at high temperature (R.W. Bosch, SCK-CEN, Belgium)**
6. **Corrosion monitoring (A. Molander, Studvick, Sweden)**
7. **Corrosion of Internals in LWR (, Petten, UE)**
8. **Generation IV**
9. **Corrosion issues in fusion facilities (G. Benamati, Italy)**
10. **Education - Summer School(s)**



3 years plan (2004-06) of the WP4

- Two sessions during Eurocorr's
 - A workshop ("2nd International workshop on prediction of long term corrosion behaviour in nuclear waste systems" 2004, "Corrosion issues in future Nuclear Systems" 2005, "reprocessing plants" 2006)
 - A nuclear corrosion session (all items related to nuclear corrosion)
- Specific seminars /workshops
 - EFC Event 279 - 2004 (Electrochemistry at High temperature)
 - NUCPERF 2006, EFC event N°284 (2006)
- Publications
 - Proceedings of the Nice workshop (by ANDRA, available "free of charge", ...)
 - "Corrosion of archaeological artefacts" (EFC series N° 48)
 - "Corrosion issues in LWR" (EFC series N°51)
 - ""Electrochemistry at High temperature" (EFC series N°49)
- Proposal of a co-ordinated action (CA)



Preparation of the next 3 years plan (2007-09) of the WP4

- Two sessions during Eurocorr's
 - A workshop ("Stress Corrosion Cracking" 2007, ...)
 - A nuclear corrosion session (all items related to nuclear corrosion)
- Specific seminars /workshops "open to the world"
 - 3rd workshop on Long Term Prediction (May 2007, US)
 - Next NUCPERF (?)
- Publications
 - EFC series
 - With international journals (JNM)
- Links with Nuclear international organisations (?)
 - OECD/NEA
 - AIEA
 - First attempt with the 3rd workshop