

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



BOARD OF ADMINISTRATORS

London, UK

March 18, 2005

WORKING PAPERS

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WORKING PAPERS

Meeting of the Board of Administrators

of the

European Federation of Corrosion

London, UK, March 18, 2005

Venue of meeting: **Institute of Materials
1, Carlton House Terrace
London SW1Y 5DB
U.K.**

Date and time of meeting: **Friday 18 March, 10.30 a.m.**

Chairman: **Prof. Björn Linder (EFC President)**

Secretary: **Ms Pascale Bridou (Paris Office)**

**EUROPEAN FEDERATION OF CORROSION
MEETING OF THE BOARD OF ADMINISTRATORS
LONDON, 18th March 2005, 10.30 a.m.**

PROPOSED AGENDA

- Item 01 Opening of the meeting
- Item 02 Apologies for absence
- Item 1 Approval of the Agenda and Adoption of the Minutes of the Last Meeting of BoA
- Item 2 Working Party Developments
 - 2-1 *Progress on Task Force 2: "Focussed Applications in Corrosion and Protection of Steel Structures"*
 - 2-2 *Progress on formation of the WP on "Corrosion of Polymers"*
- Item 3 Role of the EFC in Certification
 - 3-1 *Progress on Mentor C: Project on Training and Certification*
- Item 4 Liaisons with other organisations
 - 4-1 *EFC/NACE relationship*
 - 4-1.1 *Request of NACE Europe to become an EFC Member*
 - 4-1.2 *EFC Participation to International NACE Congress*
 - 4-2 *FEMS*
- Item 5 EUROCORR Series: 2004 to 2008
- Item 6 Finance
 - 6-1 *Honorary Treasurer's Appointment*
 - 6-2 *Honorary Treasurer's Report*
- Item 7 EFC Activities and Projects
 - 7-1 *Scientific Secretary's Report*
 - 7-2 *EFC Publications*
 - 7.3 *EFC Web Site*
- Item 8 EFC Calendar of Events
- Item 9 Administrative Matters
 - 9-1 *Opportunities for EU funding of Activities*
 - 9-2 *Co-opted Membership*
 - 9-3 *EFC Award 2005*
- Item 10 Review of EFC Statutes and Bye-Laws
- Item 11 Any other Business
 - 11-1 *EFC Presidency and Vice-Presidency*
 - 11-2 *Arrangements for the celebration of the 50th EFC anniversary*
 - 11-3 *Expression of Interest in EFC Membership by OFI (Austria)*
- Item 12 Date and Place of next BoA

WORKING PAPERS OF THE EFC BOARD OF ADMINISTRATORS

Item 01 Opening of the meeting

Mr Linder, President of the EFC, chairman of the meeting, will welcome delegates.

Item 02 Apologies for Absence

Ms. Bridou, Paris Office, will announce apologies for absence.

Item 1 Approval of the Agenda and Adoption of the Minutes of the last Meeting

1-1 BoA members are asked to approve the proposed agenda.

1-2 BoA members are asked to approve the minutes of the Nice meeting (12 September 2004) and to raise any matters not covered in the present agenda.

Item 2 Working Party Developments

2-1 Progress on Task Force 2: “Focussed Applications in Corrosion and Protection of Steel Structures”

The Scientific Secretary will present progress on activities of the Task Force 2 on “Focussed Applications in Corrosion and Protection of Steel Structures”.

2-2 Progress on formation of the WP on “Corrosion of Polymers”

The inaugural meeting of the new WP on “Corrosion of Polymers” took place on 16th September 2004, during EUROCORR 2004 in Nice.

The Scientific Secretary will present progress on the activities of this WP (**see Appendix 1**).

Item 3 Role of the EFC in Certification

3-1 Progress on Mentor-C Project on Training and Certification

The Scientific Secretary will review progress on the Mentor-C Project, which ended in January 2005.

Exploitation of the Mentor-C products is now being discussed.

Item 4 Liaisons with other organisations

4-1 EFC/NACE (National Association of Corrosion Engineers) relationship

4-1.1 Request of NACE Europe to become an EFC Member

EFC has been approached by NACE Europe requesting that NACE-Europe become a Member Society of EFC (see **Appendix 2**). In response to a request to see its Statutes, the NACE Articles of Incorporation were provided (see **Appendix 3**).

BoA Members are requested to express their opinion on this proposal.

4-1.2 EFC Participation to International NACE Congress.

NACE invited EFC to participate the International Forum to be held during CORROSION/2005 in April 2005 (see **Appendix 4**). BoA members are requested to nominate a suitable representative on behalf of EFC.

4-2 FEMS (Federation of European Materials Societies)

The EFC Scientific Secretary will report on progress concerning the formation of the European Materials Forum (see **Appendix 5**).

Item 5 EUROCORR Series

5.1 EUROCORR 2004

The Paris Office will report on the results of EUROCORR 2004 (see **Appendix 6**).

5-2 EUROCORR 2005

EUROCORR 2005 will be held in Lisbon, on **4 – 8 September 2005**.

Mr Ferreira will present a report on the preliminary arrangements for EUROCORR 2005 on behalf of the organisers.

5-3 EUROCORR 2006

EUROCORR 2006 will be held in Maastricht, The Netherlands, organised by NCC.

Mr Nijhof will present the preliminary arrangements on behalf of the organisers.

5-4 EUROCORR 2007

EUROCORR 2007 will be held in Germany. Mr Meier will report the preliminary arrangements on behalf of the organisers.

5-5 *EUROCORR 2008*

Only one bid was received for hosting EUROCORR 2008, from the Institute of Corrosion in the UK, supported by The Institute of Materials, Minerals and Mining, and the Conference Department at the University of Manchester as the local organisers (see **Appendix 7**).

Item 6 Finance

6-1 *Honorary Treasurer's Appointment*

BoA is requested to confirm the nomination of Dr. Douglas Mills as successor of Dr. Charles Booker.

6-2 *Honorary Treasurer's Report*

The Honorary Treasurer will table the provisional EFC Financial report for 2004.

Item 7 EFC Activities and Projects

7-1 *Scientific Secretary's Report*

The Scientific Secretary will present his report covering activity since the last meeting of BoA in Nice on 12 September 2004.

BoA is invited to approve the Scientific Secretary's Report (see **Appendix 8**).

7-2 *EFC Publications*

7-2.1 *EFC Series*

The Scientific Secretary will report on recent additions to, and new titles currently in preparation, in the EFC Series (see **Appendix 9**).

7-2.2 *Publications*

Antoine Pourbaix has suggested that BoA Members should think of the opportunities to increase interest in, and the sale of, the EFC publications.

BoA members are requested to make proposals in this respect.

7-2 *EFC Web Site*

Progress on the evolution of the web site will be reported (www.EFCWEB.org).

Item 8 EFC Calendar of Events

The Scientific Secretary will introduce an update of forthcoming events in the EFC Calendar, which now includes important non-EFC events (see **Appendix 10**).

Item 9 Administrative Matters

9-1 Opportunities for EU funding of activities

Ideas about how to get EU funding for the EFC's activities will be discussed with the participation of M. Bogaerts.

9-2 Co-opted Membership

Proposal for co-opting two new BoA members have been received by EFC President.

DECHEMA has proposed the co-option Prof. Dr. Michael Schütze (see **Appendix 11**) and CEFRA COR and SCI have jointly proposed the co-option of Prof. Philippe MARCUS (see **Appendix 12**).

BoA Members are requested to approve these co-options.

9-3 EFC Awards for 2005

9-3.1 Marti i Franqués Medal

Appendix 13 provides the letter from SEQUI informing EFC that they have withdrawn the Marti i Franqués medal from the EFC.

9-3.2 EFC Corrosion Medal for 2005

The STAC Chairman will announce the winner of the EFC Corrosion Medal for 2005.

Item 10 Review of EFC Statutes and Bye-Laws

Mr Harrop has proposed that the EFC Statutes (see **Appendix 14**) and Bye-Laws (see **Appendix 15**) should be reviewed to ensure that they remain appropriate in all respects.

Item 11 Any other Business

11-1 EFC Presidency and Vice-Presidency

The EFC President will outline the procedure to be followed for the nomination of a new EFC President and Vice-President for appointment during the General Assembly in Lisbon.

11-2 Arrangement for the Celebration of the 50th EFC Anniversary

Progress on ideas for the celebration of the 50th EFC Anniversary will be presented.

11-3 Expression of Interest in joining the EFC from OFI (Austria)

The Austrian Research Institute for Chemistry and Technology has heard about the new EFC WP 19 on Corrosion of Polymer Materials and has informed the Scientific Secretary of its interest in EFC membership (see **Appendix 16**).

Item 12 Date and Place of next BoA

The next BoA meeting will be held in September 2005, in conjunction of EUROCORR 2005, in Lisbon, Portugal, at a date and place to be announced later.

APPENDICES

Inaugural Meeting of EFC Working Party 19 on Corrosion of Polymer Materials

The inaugural meeting of a new EFC Working Party (WP19) on Corrosion of Polymers took place in conjunction with EUROCORR 2004 in Nice on 16th September 2004. The working party been proposed a few months earlier by GfKorr, one of the two German Members of the EFC. The proposal had received support from other EFC Member Societies in Austria, Belgium, France, Hungary, Netherlands, Portugal, Spain, Sweden, Switzerland and UK, which well exceeded the minimum requirement of four-country support for the formation of a new working party. The proposal was also supported by the EFC Science and Technology Advisory Committee, although only after much debate about the title. Views were equally divided between those in favour of “Corrosion of Polymers”, and those who preferred “Degradation of Polymers”. In the end it was decided to let the Working Party itself have the last say on the matter. During the inaugural meeting, the preference was for “Corrosion”, since this is a working party of the European Federation of Corrosion. However, it was acknowledged that the corrosion of polymers does not conform with the generally accepted ISO definition of corrosion, which specifically refers to metals. For the purposes of WP19, corrosion has, therefore, been redefined as: “All processes involving the components of the material and medium which cause mass transport across the phase boundary and which may cause deterioration of the component or system”.

In total, twenty-four people attended the inaugural meeting of WP19, and several others have expressed interest in joining it, including one person from the UK (Dr Tony Maxwell of NPL). Dr Rudolf Morach of Ciba Speciality Chemicals in Basel, Switzerland was appointed as Chairman of WP19. The objectives of the new working party will be: “To improve harmonisation of the theoretical understanding of corrosion mechanisms leading to the sustainable use and safe application of polymer materials, using a European network of experts to assemble the present understanding in the field of corrosion of polymers, identify the needs for further research, both in basics and application, evaluate existing testing methods, promote new investigation methods, and foster pre-normative work on an international basis”. It is hoped that cooperation with all other international groups working in the field of corrosion of polymers will attract new people to attend EUROCORR in future. The possibility of seeking financial support at a European level (e.g. via COST) to cover travel costs associated with meetings to discuss joint research work is under consideration.

First Workshop on Corrosion of Polymer Materials

The first activity organised by WP19, a Workshop on Corrosion of Polymer Materials, was incorporated into its inaugural meeting. This included seven most interesting presentations by leading exponents in the field. The first presentation was a short overview of the topic by Rudolf Morach. He began by reiterating the claim often heard from the plastics industry that “plastics do not corrode” but went on to explain that this is not so. Indeed there are analogies with the corrosion of metals, which can occur in many forms including uniform corrosion, localised corrosion, erosion corrosion, radiation induced corrosion, etc., and, in the presence of mechanical loading, stress corrosion cracking and corrosion fatigue. Long chain polymers are also susceptible to various forms of corrosion. These substances have 2-way bonds between the chains. Up to 10 chemical substances are added to polymer melts, including stabilisers, ☐rganizations and UV absorbers. The additives fit between the long chains from which locations they can be leached out, leading to the embrittlement and premature aging of the material. In the case of food containers, such processes can adversely affect the contents. Polyethylene is susceptible to uniform corrosion while Amorphous Acrylonitrile Butadiene Styrene Terpolymer (ABS) and composites can be prone to selective corrosion and pitting. As with metals, the occurrence of stress corrosion cracking in

polymers requires a susceptible material, a crack-promoting environment and critical stresses. Polyethylene can crack in the presence of wetting agents and tensides (surface active substances); polystyrene can crack in heptane and acetone vapours; while copolymers can crack in olive oil. Some interesting statistics were presented from the analysis of 5000 failures of plastics components, some of which were due to faulty processing or poor design, as follows:

Stress corrosion cracking	25 %
Fatigue	15 %
Poor design	14 %
Creep relaxation	8 %
Chemical attack	7 %
UV attack	6 %
Thermal degradation	4 %
Others	21 %

The most commonly used test of susceptibility to stress corrosion cracking of polymers involves the exposure of stressed specimens under constant load to the environment of interest. Curves are plotted of time to failure versus applied stress at each of several different temperatures (e.g. 40 °C, 60 °C and 80 °C). A number of important questions must be addressed by the new working party. For example: what are the mechanisms of polymer corrosion; what is the influence of additives and processing; and how can long-term behaviour be predicted from short term testing? This latter point is of particular interest for water piping in houses, where unexpected failures sometimes occur after 10-20 years, depending on the characteristics of the water being carried. Dr Morach suggested that polyethylene should be studied to begin with, but if that doesn't work out attention should be turned to polypropylene and, if necessary, the application of protective coatings to plastics.

The next speaker was Dr Bernhard Blümich of Aachen Technical University, Germany. His presentation concerned new tools for investigation and testing of polymer performance. In particular, he described the NMR-Mouse, a portable nuclear magnetic resonance-based device. Nuclear magnetic resonance is most often used in medical applications because it is safe and, unlike X-rays, provides information about soft tissue. However, applications of NMR in polymer science have been in progress for 20 years, culminating with the development of the NMR-Mouse. This is a portable instrument, which measures the resonance decay function, T_2 . It can be used, for example, to monitor the degradation of plastics insulation on wires. Features, such as oil penetration, can be revealed by the colour contrast of the output. A resolution of about 0.1 mm is available at present, but this is expected to improve in future. The NMR parameters are different for under-cured and over-cured polymers and the technique can be used to monitor aging and water take-up of polymers. The NMR signals can also be analysed to provide information about crystalline and amorphous regions in polymers, and on changes that occur due to deformation or on annealing at 80 °C (i.e. 40 °C below the melting temperature). NMR can be used to detect defects in glass fibre reinforced composites. In fact, anything that modifies the plastics matrix through the ingress of chemicals can be detected by NMR monitoring. The equipment is commercially available and can even be used to make measurements in the proximity of metal components such as steel wires in car tyres or for coatings on steel.

Dr Michael Rudschuck, Head of the Wear Group at the German Institute for Polymers (DKI) in Darmstadt, Germany, spoke about research requirements in connection with the stress cracking of polymers. He said that damage to plastics items can be predictable (due to poor design, etc.) or unpredictable (due to aging, corrosion or solvent-induced crazing). Stress induced crazing is a phenomenon that only affects polymers. Other factors that affect polymers include light and

radiation, micro-organisms, mechanical loads and chemical influences. On their own, mechanical loads and chemical influences are relatively easy to control but both together can lead to unexpected behaviour. Stress cracking occurs due to the conjoint action of internal stress and a crack releasing medium and nothing quite the same exists for metals. It is a purely physical process, with no chemical action, which results from swelling, the development of crazing, and cracking of the component. The dissolution of polymers in solvents involves no chemical reaction, simply dissolution. All injection-moulded plastics items have high internal stresses, which can be released by the occurrence of stress cracking. To minimise the risk of such damage, notches and other stress concentrating features must be avoided. Edges should be rounded to avoid high stresses and production methods must be optimised, e.g. by slow injection. All sorts of substances can promote the cracking, including cleaning agents, disinfectants, and $\square$ rganization from other components. To make matters worse, the manufacturer never knows to what kinds of media the component will be exposed in service and failures can occur after years, or on first use of plastics. For example, oil can cause crazing of polycarbonate filter cartridges (although polyamide 11 is more resistant to oil). Soap can be enough to cause craze cracking in polymethyl methacrylate (PMMA), which means that any threads must have a well-rounded profile, and superglue causes crazing of ABS polymers. The use of lubricants can cause crazing during the forming of polymers, so must be avoided at all cost during injection moulding. Tables are available that give the susceptibility of polymers to crazing in a wide range of different media. However, skin lotions can include mixtures of different components that can wreak havoc with plastics, but their effects are difficult to predict from the tables. In all cases, the external medium interacts with stresses (either internal or external) to increase the rate of growth of crazes as a function of the local stress intensity. This means that the most commonly used test methods, bent strip tests and tensile tests, are irrelevant. The literature on craze cracking dates from the 1970s and, in Dr Rudschuck's opinion, it is high time that it was revisited. A great deal of catching up needs to be done by the Polymer Corrosion Working Party.

The Swedish Corrosion Institute in Stockholm has had a group on corrosion of polymers for many years, and Karin Jacobson from that establishment gave a talk that had been co-authored by her colleagues Stefanie Römhild and Gunnar Bergman. This concerned the corrosion of glass-fibre reinforced polymers (GRP), which are widely used in the chemical industry when titanium won't do, e.g. for 35 % HCl. Unfortunately, even polypropylene degrades under sufficiently aggressive conditions (such as 99 % chlorine), but if the corrosion rate is known, it should be possible to include a corrosion allowance at the design stage. The important thing is to keep the HCl away from the load-bearing glass fibres. The diffusion front of HCl through the polymer can be established by the microscopic examination of polished sections. Nevertheless, GRP demisters in a flue gas scrubber have collapsed because of corrosion and there is a clear need for systematic studies. Some work has been done, and this has revealed that the depth of attack of GRP in ClO_2 depends on the exposure time, ClO_2 concentration, and temperature. Twice as much damage occurs at 35 °C as at 15 °C. The type of resin used is also important because different vinyl esters perform differently. In areas where there is a substantial amount of glass compared to resin, cracks can form more readily and can penetrate more deeply. Stress corrosion cracking is an important consideration for glass reinforced polymers and can occur where acid has access to the fibres in the matrix. The tensile stress must be less than the 0.2 % proof stress. In one case, at a pulp mill, stress corrosion cracking due to ClO_2 resulted in the failure of a GRP pipe lined with 3 mm thick polyvinylidene fluoride (PVDF). This thickness was less than the 4 mm that had been specified. However, there are few data on diffusion through fluoropolymers so it is always difficult to estimate the correct thickness for protection. What is more, the failure occurred at a joint where the stress corresponded to the 0.6 % proof stress, sufficient to initiate stress corrosion cracking by ClO_2 . A very costly failure affected a GRP line 8 km long that was used to carry HCl. This occurred after only 2 years in service due to through wall stress corrosion cracking. The crack is believed to have

initiated either due to impact during installation or as a result of excessive clamping forces. The resin was too brittle for the application and diffusion along the fibres is more rapid than through the polymer. Dr Jacobson ended her talk by reporting a few more serious problems with GRP. Delamination was one of these. This shows as a colour change due either to curing defects (as a consequence of the incorrect curing temperature) or attack of the glass fibres by water or acid. Micro-delaminations can very easily grow into macro-delaminations in poorly cured regions. Osmotic blisters (boat pox) occurs due to the penetration of salt water into the GRP, assisted by osmotic pressure originating from the lower salt content in the GRP than in the external environment. Regrettably, plastics are not impermeable and are by no means standardised. Polypropylene can contain literally anything and may suffer swelling or shrinkage depending on the environment. In one case, a 12-year old petrol storage tank failed when the composition of the fuel was changed by the addition of 3 % methanol. Lastly, one must not forget the risk of galvanic blistering of plastics reinforced with carbon fibres. In this case the fibres can conduct a current and, if in contact with another metal, can create galvanic cells resulting in reactions that cause blisters to form.

Like metals, plastics can be prone to microbially influenced corrosion (MIC) and a presentation by Professor Paul Linhardt of the University of Technology in Vienna discussed strategies for its prevention. Professor Linhardt went to great pains to stress that he is not really a specialist in polymers, having come from the corrosion of metals side of things. He held that the ISO definition of corrosion (see ISO 8044:1999) relates only to metals and recommended that for a broader definition one must look to that of Mr Spähn in the 1980's. He defined corrosion as "all processes involving the components of the material and medium which cause mass transport across the phase boundary and which may cause deterioration of the material (or failure of the system)". Microbes can survive over the temperature range -12 °C to +110 °C and can lead to the development of potentially corrosive environments. To make matters worse, they can tolerate a wide range of pH values, salinity and pressure provided that nutrients are available to an extent $> 10 \mu\text{g L}^{-1}$ (C_{org}). They can also survive in environments containing more than 2 mg L^{-1} of free chlorine. Several basic modes of MIC were outlined, as follows:

1. Modification of the complete medium to give H_2S or NH_3 ;
2. Modification of the phase boundary by biofilms (the most important one);
3. Deterioration of protective coatings due to MIC as a precursor to corrosion of the underlying metal;
4. Indirect MIC as a consequence of using too high a temperature or biocide concentration in an attempt to eliminate microbe for hygienic reasons.

Biofilms can vary in thickness over the micron to centimetre range. They often accommodate synergistic mixed populations. They contain between 50 % and 95 % water, together with an extra-cellular polymeric substance (EPS) that glues the microbes to the surface. Biofouling is impossible to avoid in open systems, attachment to the surface being controlled by signalling molecules that are "quorum sensing". However, the speed of fouling depends on the surface roughness and type of material. Biofilms can clog pipes, and can cause microbial influenced corrosion due to the chemical modification of the phase boundary, together with stagnant flow conditions within the biofilm layer. The MIC of polymers can occur due to:

1. Direct attack of the polymer chain;
2. Leaching of small molecules;
3. The ingress of small molecules from the biofilm into the polymer chain.

The attack is usually by stereo selective enzymes and crystallinity plays a role (the more crystallinity, the less easily attachment occurs). The propensity to attack depends on the polymer:

- Polyethylene is relatively resistant (but additives may adversely affect this);
- Polypropylene is rumoured to be susceptible to stress corrosion cracking due to copper ions, which may accumulate in the biofilm from the environment to a sufficiently high level to cause cracking;
- Polystyrene is very stable;
- Polyvinyl chloride loses mass due to the loss of organization, resulting in poor properties;
- Polyesters have stability which depends on their acid components;
- Polyimides (PI) can be degraded under chemical conditions by both bacteria and fungi
- Synthetic polymers with molecular weights in excess of 1,000 are generally considered to be stable, although degradation has been reported with molecular weights of up to 20,000.

Microbially influenced corrosion can affect the appearance and the protection provided by organic coatings since biodegradation can give rise to diffusion pathways, allowing the flow of electrolyte to the underlying metal. Alternating current electrochemical impedance spectroscopy may be used to check the barrier properties of such coatings. There exists a standard (EN ISO 846: Plastics — Evaluation of microorganisms) which is suitable for fungi, but not for microbes. Curiously, there are relatively few published case histories of microbially influence corrosion of polymers. This seems very different compared with the situation for MIC of metals, where published case histories are common, and Professor Linhardt regards this as an area in which WP19 might make an important contribution in coming years.

The next presentation was again by Michael Rudschuck of the German Institute for Polymers in Darmstadt, this time speaking on behalf of his colleague Robert Brüll who was unable to attend the meeting. The topic was the failure analysis of corroded polymer components and it began with some statistics: of the 65,000 tonnes per year of polymer pipes, 40 % are made from polyolefins. The corrosion mechanism of these pipes involves free radical oxidation to give organic acids, esters, etc., all of which are characterised by specific infra red absorption characteristics. Long term exposure tests would be too time consuming to be used for quality control processes so precise analytical methods have been developed instead to establish which reactions lead to degradation of the pipes. The work started 6 months previously on the red pipes used for domestic hot water installations in which large cracks up to 1.5 cm deep had formed in a 2 cm thick pipe wall. Fourier Transform Infra Red (FTIR) spectroscopy revealed a gradient of hydroxyl-containing degradation products through the pipe wall. A variation of molecular mass from 544,000 at the unaffected outer wall to 200,000 – 280,000 within 0.01 – 0.1 mm of the inner wall was also detected, showing that the degradation products are relatively small molecules. Spectra were recorded from thin slices taken through the pipe wall. These showed that the degradation products are located very close to the inner surface. Effort will be directed towards the identification of the additives responsible for specific absorption troughs and to determine the activity of the radical scavengers. Black spots have been found to coincide with increased carbonyl concentration. Mid-infrared (MIR) imaging using a 64x64 diode array to map across the image seen in the light microscope has confirmed that the degradation started at the inner surface, as expected, leading to visible morphological changes. It was stated that the presence of copper ions can accelerate the degradation and because of this the use of copper pipework in installations that include polypropylene is forbidden. Other ions such as lead are also bad for plastics pipes and there appears to be a direct link between metal corrosion and the degradation of polymers. Copper ions act as catalysts for the degradation, so only very small amounts are needed. In mixed polymer/metal heat exchanger systems, oxygen can diffuse through the polymer, allowing corrosion of the metal parts and releasing metal ions that promote knock-on corrosion of the polymer parts.

The final presentation of the workshop, on weathering and fatigue of thermoplastic polymers, was given by Philippe Castaing from the CETIM Technical Centre for the Mechanical Engineering Industries in Nantes, France. This focused on the effects of water on fatigue, which, it was claimed, is responsible for one-third of all failures of thermoplastic polymers. A study had been conducted of the effects of cyclic frequency and humidity on the fatigue behaviour of glass fibre reinforced polymers. In the presence of very high stresses, polypropylene melts locally at 165 °C, giving rise to holes, which coalesce leading to failure. At lower stresses, cracks can form with accompanying striations in the polymer that differ from those produced during mechanical or thermal fracture in fatigue. Fatigue and weathering tests have been conducted on dog-bone specimens of glass-fibre reinforced polyamide 66 with a density of 1.34, fibre ratio of about 30 % and crystallinity ratio of about 30. All of the fibres were oriented along the injection direction to give an anisotropic morphology. The tests were conducted using alternating bending and fully reversed loading. The results for absorbed water contents from 2 % to 8 % showed that the fatigue behaviour of polyamides is sensitive to moisture. The fatigue limit at 10^6 cycles fell from 42 MPa under dry conditions to 35 MPa under humid conditions (3.5 % water). The attack occurred on the interfaces, leading to $\square$ rganizations $\square$ of the matrix without any noticeable effect on the fracture mode. However, after 10^7 cycles, the effect of water on the fatigue strength was less significant.

EFC WP ON CORROSION OF POLYMERS**ATTENDANCE LIST
INAUGURAL MEETING 16 SEPTEMBER 2004**

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Dr João Henrique Pires de Almeida Alexandre (Rubbers and Elastomers)	INETI Estrada do Paço do Lumiar 1649-038 LISBOA Portugal	
Dr ^a Maria Cristina Sena Ferreira (Other Polymeric Materials)	INETI Estrada do Paço do Lumiar 1649-038 LISBOA Portugal	

NACE-Europe Expression of Interest in EFC Membership

1)

To: Dr Paul McIntyre
From: Roger Francis, INTERNET:r.francis@weir.co.uk
Date: 14/12/2004, 10:03 PM
Re:

Paul,

.....could you give me a call to discuss NACE Europe becoming a formal member of EFC please? This was raised at a recent Board meeting and I have been asked to open discussions. Before we make a formal approach, I have some questions that I think you can help with. Cheers,

Roger Francis
Corrosion Services Manager
Tel: +44 161 954 4726
Fax: +44 161 954 4739
[Email: r.francis@wml.weir.co.uk](mailto:r.francis@wml.weir.co.uk)

2)

To: Dr Paul McIntyre,
CC: [unknown], INTERNET:chris.fowler@bodycote.com
From: Roger Francis, [INTERNET: r.francis@weirpumps.com](mailto:INTERNET:r.francis@weirpumps.com)
Date: 23/12/2004, 16:01 PM
Re: Re: NACE Europe

Dear Paul,

With regard to the NACE/EFC matter. As NACE Europe is the European arm of NACE, perhaps it would be eligible to join as an entity. Most of its members are also members of National Corrosion Societies that are EFC affiliated and want to see the organizations working more closely together. I would be grateful if you would sound out Don Harrop for his views. The NACE Board now appears to accept what Chris and I have been saying that NACE cannot compete with EFC and needs to work more closely with it. If NACE Europe was admitted, what kind of annual fee would be required? Chris and I need to be sure we can afford it! Current European membership is 1,000 members.

Best Wishes for Christmas and the New Year,

Roger Francis
Corrosion Services Manager
Tel: +44 161 954 4726
Fax: +44 161 954 4739
[Email: r.francis@wml.weir.co.uk](mailto:r.francis@wml.weir.co.uk)

NACE STATUTES

ARTICLES OF INCORPORATION OF NACE INTERNATIONAL

(Approved by NACE Membership March 1, 1994)

ARTICLE I

The name of this corporation is NACE INTERNATIONAL.

ARTICLE II

This corporation is organized as a nonprofit technological association, and its objectives shall be:

- (a) To extend the recognition of corrosion as a problem requiring the attention of persons with specialized knowledge and experience.
- (b) To ensure the availability of adequate training for workers in the field of corrosion and materials protection.
- (c) To promote scientific research in the prevention of deterioration of materials and the selection of optimum materials for special application.
- (d) To provide forums and media through which experiences with corrosion and its prevention may be reported, discussed, and published for the common good.
- (e) To encourage special study and research to determine the causes of corrosion, and to develop new or improved techniques for its prevention.
- (f) To correlate study and research on corrosion problems among technical associations to reduce duplication and increase efficiency.
- (g) To promote standardization of terminology, techniques, equipment, and design in corrosion control.
- (h) To contribute to public safety and to protect the environment by promoting the prevention of corrosion.

(i) To foster cooperation between individual operators of plants and structures in the joint solution of common corrosion problems.

(j) To enlist a wide diversity of international membership to achieve reciprocal benefits between industries and governmental groups as well as between individuals and corporations.

ARTICLE III

The street address of the registered office of the corporation is 1440 South Creek Drive, Houston, Texas and the name of its registered agent at such address is Jeff H. Littleton.

ARTICLE IV

The period of duration of this corporation is perpetual.

ARTICLE V

The direction and management of the affairs of this corporation and the control and disposition of its properties and funds shall be vested in a Board of Directors composed of such number of persons (not less than three) as may be fixed by the BYLAWS of the corporation. The number of directors at the present time is thirty-six as follows:

Al-Adel, I.F., Saudi Aramco, P.O. Box 722,
Dhahran 31311, Saudi Arabia
Arnold, C.G., Dow Chemical USA, Texas
Div., B-2402, Freeport, TX 77541
Asphahani, A.I., Haynes International Inc.,
1020 West Park Ave., P.O. Box
9013, Kokomo, IN 46902-9013
Bianchetti, R.L., Blackstone Group, P.O. Box
1689, Danville, CA 94526
Bowman, E.M., Nalco Chemical Co., P.O.
Box 87, Sugar Land, TX 77487

NACE Articles of Incorporation – March 1994

- Brown, G.K., Corrocean, 827 Lakeview Cir., Kingwood, TX 77339
- Brown, R.P., R.P. Brown & Assoc., P.O. Box 545, Keystone Heights, FL 32656
- Chmilar, J.F., Associated Corrosion Consult., 2220 - 39th Ave. N.E., Calgary, Alberta, Canada T2E 6P7
- Coe, R.J., Public Service Co. of Colorado, 1123 W. 3rd Ave., Denver, CO 80223
- de Rincon, O.T., University of Zulia, Post Grado de Ingenieria, Apartado Postal 98, Maracaibo, Venezuela
- Efird, K.D., Exxon Production Research, P.O. Box 2189, Houston, TX 77252
- Fulford, J.P., Florida Power & Light, P.O. Box 14000, Juno Beach, FL 33408
- Garrity, K.C., Cortest Columbus Technologies, 2704 Sawbury Blvd., Columbus, OH 43235
- Harrington, T.D., Marin Municipal Water District, 220 Nellen Ave., Corte Madera, CA 94925
- Hays, G.F., Drew Industrial Div., Ashland Chemical Co., One Drew Plaza, Boonton, NJ 07005
- Herbert, R.W., Davy Dravo Div., 126 Lake View Dr., McKees Rocks, PA 15136
- Irwin, S.L., Explorer Pipeline Co., P.O. Box 2650, Tulsa, OK 74101
- Jensen, F.Ø., Jotun Cathodic Protection, P.O. Box 46, 3971 Langesund, Norway
- Lawson, V.B., Westcoast Energy Inc., 1333 West Georgia St., Vancouver, B.C., Canada V6E 3K9
- Lewis, B.J., Santa Fe Pacific Pipelines, P.O. Box 27940, Tucson, AZ 85726
- Logue, O.T., Louisiana Compressor Maint. Co., 140 Piping Rock, Houma, LA 70363
- McKinney, J.W., Durichlor 51 Anode Co., P.O. Box 1363, Dayton, OH 45401
- Magnon, J.L., Dixie Testing & Products Inc., 9723 Honeywell, Houston, TX 77074
- Mogollon, E., Nalco Chemical-Peru, 1 Nalco Ctr., Naperville, IL 60563
- Moriber, N.J., Conceco Engineering, Inc., 999-C Edgewater Blvd., Ste. 336, Foster City, CA 94404
- Newton, L.E., 1505 Winfield, Midland, TX 79705
- Parkins, R.N., Univ. of Newcastle upon Tyne, Newcastle upon Tyne, England NE1 7RU
- Pogemiller, G.E., Natural Gas P/L Co. of America, P.O. Box 3399, Joliet, IL 60434
- Reeves, C.R., Division Manager, Tapecoat Co., 4880 Redbud Dr., Charlotte, NC 28227
- Scribner, L.A. Jr., Union Carbide Corp., P.O. Box 8361, So. Charleston, WV 25303
- Stray, J.D., Betz Inc., 3026 Solandt Rd., Kanata, Ontario, Canada K2K 2A5
- Syrett, B.C., Electric Power Research Inst., P.O. Box 10412, Palo Alto, CA 94303
- Uschan, R.M., Donohue & Assoc., 2576 Normandy Ln., Milwaukee, WI 53226
- Waters, D.M., PSG Corrosion Engineering/Corrpro, 7807 Convoy Ct., Ste. 110, San Diego, CA 92111
- Webster, R.D., Commonwealth Seager Group, 1, 2925 - 10 Avenue N.E., Calgary, Alberta, Canada T2A 5L4
- Young, W.T., Corrpro Companies, 242 N. Rolling Rd., Springfield, PA 19064

The Directors shall continue to serve until their successors are selected in the manner as provided in the BYLAWS of the corporation.

ARTICLE VI

This is a nonprofit corporation, organized solely for the literary, scientific, and educational purposes as stated herein and is without stock, and no part of its property, whether income or principal, shall ever inure to the benefit of any officer, director, member, employee of the corporation, or any individual having a personal or private interest in the activities of the corporation, nor shall any such officer, director, member, employee, or individual receive or be lawfully entitled to receive any pecuniary profits from the operation of the corporation except reasonable compensation for services rendered in carrying out one or more of its said purposes. The corporation shall limit its activities in attempting to influence legislation to the limits established by law under which such activities can be conducted without loss

of tax-exempt status. The corporation shall not participate in or intervene in (including the publishing or distribution of statements) any political campaign on behalf of any candidate for public office.

ARTICLE VII

In the event of dissolution of the corporation by termination of its existence, lapse of time, or otherwise and when it has the ownership of, or is entitled to ownership of, any funds or property of any sort, real, personal, or mixed, such funds or property or right thereto shall not be transferred to private ownership but shall be transferred and set over to one-third to the University of Texas, one-third to Ohio State University, and one-third to IIT Research Institute, if they then be in existence, and if not then in existence, such funds or property shall be transferred to a public charitable trust to be used exclusively in the State of Texas for the literary, scientific, or educational purposes herein outlined and shall be administered and applied thereafter to literary, scientific, or educational purposes by the Trustee or Trustees to be appointed pursuant to law by a court of competent jurisdiction upon suitable proceedings brought for the purpose.

ARTICLE VIII

The corporation may take and hold any donations, dues, or other property received in the support of its purposes. All funds of the corporation, except for expenditures necessary for the proper administration thereof or reasonable compensation for services rendered in carrying out one or more of the purposes outlined, shall be used exclusively for carrying on the work for which the corporation was formed as herein set forth.

ARTICLE IX

Anything to the contrary herein notwithstanding, the Directors shall not:

- (1) lend any part of the corporation assets to;

- (2) pay any compensation, other than set forth in ARTICLE VI to;
- (3) make any services, benefits, or facilities of the corporation available on a preferential basis to;
- (4) engage in any other transaction that diverts any part of the corporation assets to;

any person, association, or corporation that has contributed property or money to the corporation. Nor shall the Directors engage, participate, or intervene in any activity or transaction that would cause the corporation to lose its status as an exempt organization under the provisions of the Internal Revenue Code; and the use, directly or indirectly, of any part of the corporation's funds or property in any such activity or transaction is hereby expressly prohibited.

ARTICLE X

SECTION 1. A director of the Association shall not be liable, or shall be liable only to the extent provided in the Articles of Incorporation, to the Association or its members for monetary damages for an act or omission in the director's capacity as a director, except that this article does not authorize the elimination or limitation of the liability of a director to the extent the director is found liable for:

- a. a breach of the director's duty of loyalty to the Association or its members;
- b. an act or omission not in good faith that constitutes a breach of duty of the director to the Association or an act or omission that involves intentional misconduct or a knowing violation of the law;
- c. a transaction from which the director received an improper benefit, whether or not the benefit resulted from an action taken within the scope of the director's office; or
- d. an act or omission for which the liability of a director is expressly provided by an applicable statute.

NACE Articles of Incorporation – March 1994

SECTION 2. All members of the Board, regardless of voting status, are directors of the Association.

ARTICLE XI

The power to alter, amend, or repeal the Bylaws of the corporation or to adopt new Bylaws shall be vested in the Board of Directors.

Jeff H. Littleton
Secretary

Date

ARTICLE X

SECTION 4. A director of the Association shall not be liable, or shall be liable only to the extent provided in the Articles of Incorporation, to the Association or its members for monetary damages for an act or omission in the director's capacity as a director, except that this article does not authorize the elimination or limitation of the liability of a director to the extent the director is found liable for:

- a breach of the director's duty of loyalty to the Association or its members;
- an act or omission not in good faith that constitutes a breach of duty of the director to the Association or an act or omission that involves intentional misconduct or a knowing violation of the law;
- a transaction from which the director received an improper benefit, whether or not the benefit resulted from an action taken within the scope of the director's office; or
- an act or omission for which the liability of a director is expressly provided by an applicable statute.

of tax-exempt status. The corporation shall not participate in or intervene in (including the publishing or distribution of statements) any political campaign on behalf of any candidate for public office.

ARTICLE VII

In the event of dissolution of the corporation by termination of its existence, lapse of time, or otherwise and when it has the ownership or is entitled to ownership of any funds or property of any sort, real, personal, or mixed, such funds or property or right therein shall not be transferred to private ownership but shall be transferred and set over to one-third to the University of Texas, one-third to Ohio State University, and one-third to IT Research Institute, if they then be in existence, and if not then in existence, such funds or property shall be transferred to a public charitable trust to be used exclusively in the field of Texas for the literary, scientific, or educational purposes herein outlined and shall be administered and applied thereafter to literary, scientific or educational purposes by the Trustees or Trustees to be appointed pursuant to law by a court of competent jurisdiction upon suitable proceedings brought for the purpose.

ARTICLE VIII

The corporation may take and hold any donations, dues, or other property received in the support of its purposes. All funds of the corporation, except for expenditures necessary for the proper administration thereof or reasonable compensation for services rendered in carrying out one or more of the purposes outlined, shall be used exclusively for carrying on the work for which the corporation was formed as herein set forth.

ARTICLE IX

Anything to the contrary herein notwithstanding, the Directors shall not

- and any part of the corporation assets to

DETAILS OF THE INTERNATIONAL FORUM AT NACE CORROSION/2005

From: Ray Poltorak [Ray.Poltorak@nace.org]
Sent: 18 February 2005 15:54
To: waynebums@anodeengineering.com; Paul McIntyre
Cc: George Hays; Laurie Colicci; Helena Alexander
Subject: International Forum

Confirming details of the International Forum at CORROSION/2005:

Wednesday, 6 April - planning session 12noon-1:30 PM in the Presidential Suite - lunch included

Thursday, 7 April - full roundtable 3:00-6:00 PM - Room 343 A/B
 Cocktail reception for participants & spouses - 6:00-7:30 PM - Room 343 A/B

Friday, 8 April - full roundtable 8:30 AM-3:30 PM - Grand Ballroom K
 Working lunch - Grand Ballroom L

All rooms are at the Hilton Americas Hotel

Look forward to seeing you! Best Regards,

Ray Poltorak
Assistant to the Executive Director
NACE International -The Corrosion Society
Toll Free: 1-800 797 NACE (6223) Direct
 Tel: 281/228-6276
 Direct Fax: 281/228-6376
[E-mail: Ray.Poltorak@nace.org](mailto:Ray.Poltorak@nace.org)

Protecting People, Assets & the Environment from the Effects of Corrosion

CURRENT STATUS OF THE EUROPEAN MATERIALS FORUM

To: Dr Paul McIntyre
 From: E-MRS Headquarters, INTERNET:emrs@phase.c-strasbourg.fr
 Date: 24/01/2005, 13:41 PM
 Re: EMF update

To all founding members of EMF

Dear Colleagues,

Present situation of the European Materials Forum (EMF):

1. LEGAL STATUTES: see attachment.

2. PRESIDENTS: finally three presidents will be nominated for the first 3 years, since we have to start with names for the legalisation: one from research: Z. ALFEROV (accepted), one from politics M. KLEIBER, Polish Minister of research (accepted), one from industry, not yet completed. We hope that all societies being founding members will have signed this week (there is only one missing for the moment).

3. MEETING with the MEP member of the European Parliament and of the Research commission. We got a very positive answer and the suggestion was made to launch some informal contact group between several MEPs of this committee and EMF members. Therefore, you should contact your national representative in the committee and ask him to become active. The list is attached to this mail.

4. VICE PRESIDENTS: several founding members agreed in Noordwijk to become active and to take a vice-president position.

Here is the present day situation:

- | | |
|--------------------------------|-----------------------------------|
| • INDUSTRY: | R. SINGER (FEMS Vice-President) |
| • EUROPEAN COMMISSION: | M. VAN DE VOORDE |
| • PARLIAMENT: | R. LINKOHR |
| • EDUCATION: | H. GRIMMEISS |
| • NATIONAL RESEARCH STRUCTURE: | N. WILLIAMS |
| • SCIENCE: to be defined: | (one from ALLEA and one from EPS) |
| • INTERNATIONAL: | J. P. MASSUE, G. CREAN |
| • UNIVERSITY RECTORS: | L. GUIMARAES |
| • COMMUNICATION: | R. SELTZ |

Each of the Vice presidents should have a smaller group (6-8 persons) to become active in his field. As soon as all the legal + other documents are finalized, a meeting should bring together the Presidents + Vice Presidents for the first working meeting. The location should be the easiest access place close to an airport.

Regards,

P. SIFFERT
 EMF Secretary

EUROCORR 2004 REPORT FORM 2 (TO BE COMPLETED AFTER THE EVENT)**DATES OF EVENT** 12th – 16th September 2004 **VENUE:** Nice**OVERALL THEME OF THE CONFERENCE:**

EUROCORR 2004 - Long Term Prediction and Modelling of Corrosion

ACTUAL NUMBERS OF DELEGATES RELATIVE TO TARGETS:

CATEGORY	TARGET NUMBERS	ACTUAL NUMBERS
Committee Members, organizers, etc.	20	39
Invited Plenary Speakers	2	2
Invited Delegates		13
Invited WP Chairmen	16	18
Keynote Speakers	20	35
Early Registration fee	95	190
Late Registration fee	100	94
Student Early Registration fee	29	45
Student Late Registration fee	50	12
1 Day Early Registration	18	44
2 Days Early Registration	18	42
1 Day Late Registration	10	42
2 Days Late Registration	20	39
	Total = 398	Total = 615
		(including 72 complementary registrations)

EUROCORR LEVY (Subject to a minimum of 4500 Euros):

The amount of the EUROCORR 2004 levy is calculated on the basis of 5% of the Registration fees, excluding the incomes of the Gala Dinner for 284 attendees.

On February 11, 2005, this amount is **10.763 €**. If 100 % of the inscriptions are paid, the EFC could receive 12.000 €. To date, there remains 10 % of unpaid.

PERCEIVED REASONS FOR DISCREPANCIES BETWEEN THE ANTICIPATED AND ACTUAL NUMBERS OF DELEGATES:

- EUROCORR 2004 was a great success with a significant increase of registrations between the target and the real situation in the weeks preceding the event.
- Regarding this situation, the Organizing Committee decided to invite more delegates than what had been previously considered.
- A good coordination between the scientific and organizing works, and a large and regular advertising with EUROCORR's target can explain the increase of registrations with early registration fees.
- The proposal of different fees according to different durations of participation had a good impact on delegates who cannot attend the whole conference.

LESSONS FOR FUTURE ORGANISERS OF EUROCORR:

- Importance of the control of presenting authors registration to avoid the very late cancellations and to minimize the gaps in the program. (25 cancellations versus 350 oral presentations)
This action has also to be managed for the posters.
CEFRACOR is ready to help future EUROCORR's organizers with a list of authors who didn't show up at EUROCORR 2004 and delegates who didn't pay their registration fee.
- Necessity of a centralized organization for the exhibition to allow a continuity each year, even if the event is located in a different country.

The University
of Manchester

MANCHESTER

School of Materials
The University of Manchester
Grosvenor Street
Manchester
M1 3PL

tel +44(0)161 306 9300
www.manchester.ac.uk

1st December 2004

Paul McIntyre,
Technical Secretary,
European Federation of Corrosion

Dear Paul,

EUROCORR 2008

It is in my current capacity as President of the Institute of Corrosion that I am writing to confirm our interest in bidding to hold the Eurocorr event in the UK in 2008. The bid will be led by the Institute of Corrosion, with the participation of the Institute of Materials and other stakeholder organisations in the UK that, from time-to-time may be represented on the UK Corrosion Coordination Group

You will, no doubt, let me know in due course the procedures to be adopted for the bid presentation, which I will be pleased to provide on behalf of the Institute

Best wishes

Yours sincerely



Stuart Lyon
President, Institute of Corrosion

**REPORT OF THE SCIENTIFIC SECRETARY TO THE
BOARD OF ADMINISTRATORS (FEBRUARY 2005)**

The inaugural meeting of the new EFC Working Party on Corrosion of Polymer Materials took place in conjunction with EUROCORR 2004 in Nice on 16th September 2004. I participated in the meeting and subsequently prepared a report (see Appendix 1 of these Working Papers). This has been published on the EFC Website and in “Corrosion Engineering, Science and Technology”. The new WP has stimulated much interest and is behind the expression of interest in joining the EFC which was received recently from the Austrian Research Institute for Chemistry and Technology.

Since EUROCORR 2004, I have produced and distributed the minutes of the STAC meeting in Nice, and have helped the Paris Office to produce the minutes of the meetings of both the Board of Administrators and the General Assembly.

On 9th November, I visited Brussels, together with Dr Meier and Professor Kreysa to represent the EFC at the launch of the European Technology Platform on Sustainable Chemistry, a body being established with EC support in connection with Framework 7. I presented a talk entitled “The Materials Viewpoint” which highlighted the importance of corrosion phenomena to the European chemical industry and helped to maintain awareness of the Federation’s activity in Brussels.

In connection with the MENTOR-C Project, which is sponsored by the Leonardo Agency under Framework 6, and in which EFC has a coordinating role, I participated in successful meetings in Manchester (17th December), Frankfurt (19th – 21st January) and Leuven (17th February). The main part of the project has now been completed, and discussions are ongoing about how best to exploit the products, which are distance learning course materials for vocational training in corrosion. They include digitised versions of the three EFC Videos, in connection with which there will be some financial return to the EFC.

In preparation for the celebration of the EFC’s 50th anniversary this year, I have been collecting old photographs and other materials for a special issue of the Newsletter. I have also been soliciting the abstracts for the special Plenary lectures to be given at EUROCORR 2005 by some of the EFC WP Chairmen. To date, abstracts have been received from seven of the ten chairmen who volunteered to give presentations which will summarise progress in their fields over the last 50 years, and the current state of the art. The lectures will be published after the event in a commemorative volume.

As usual, I have maintained the EFC Calendar, which now lists 30 forthcoming events, eleven of which are EFC events. The Calendar now appears on the EFC Website and will be updated at three-monthly intervals in future.

On 28th January, I visited Paris for the meeting of the President’s Task Force and subsequently prepared and distributed an action list to all participants.

Otherwise, I have been kept busy by the usual things, including the provision of assistance to the EFC Treasurer and work on the EFC publications, two of which have appeared since the last meeting of the BoA.

Paul McIntyre
EFC Scientific Secretary
23 February 2005

NEW AND FORTHCOMING ADDITIONS TO THE EFC SERIES OF PUBLICATIONS

New Additions to the EFC Series

EFC 39: “The use of Corrosion Inhibitors in Oil and Gas Production” edited by J. W. Palmer, W. Hedges and J. L. Dawson (EFC WP13 on Corrosion in Oil and Gas Production).

EFC 40: “Control of Corrosion in Cooling waters” edited by J. D. Harston and F. Ropital (EFC WP15 on Corrosion in Refineries).

Forthcoming Additions to the EFC Series

EFC 38: “Corrosions of Reinforcement in Concrete: Mechanisms, Monitoring, Inhibitors and Rehabilitation Techniques” edited by J. Mietz (EFC WP11 on Corrosion of Reinforcement in Concrete).

EFC 41: “Corrosion by Carbon and Nitrogen - Metal Dusting, Carburisation and Nitridation” edited by M. Schütze and H. J. Grabke (EFC WP4 on Corrosion in Hot Gases and Combustion Products).

EFC 42: “Corrosion in Refineries” edited by J. D. Harston (EFC WP15 on Corrosion in Refineries).

EFC 43: “The Electrochemistry and Characteristics of Embeddable Reference Electrodes for Concrete” by R. Myrdal (EFC WP11 on Corrosion in Concrete).

EFC 44: “Use of Electrochemical Scanning Tunnelling Microscopy (EC-STM) for corrosion applications and the acquisition of atomically resolved images: reference material (Cu single-crystal) and procedural guidelines” by Rakel Lindström, Vincent Maurice, Lorena H. Klein, Philippe Marcus (EFC WP6 on Surface Science and Mechanisms of Corrosion and Protection)..

CALENDAR OF FORTHCOMING EVENTS

Date/venue	Conference	Contact
3-7 April 2005 Houston, Texas USA	CORROSION NACExpo 2005	NACE International 1440 South Creek Drive Houston, Texas 77084-4906 Fax: +1 281 228 6329 e-mail: msd@mail.nace.org website: www.nace.org/nace/content/conferences/c2005/welcome.asp
5-7 April 2005 Edmonton, Alberta Canada	Water Chemistry and Corrosion Control and Failure Prevention in Steam Systems Training course	Otakar Jonas, P.E., PhD 1113 Faun Road Wilmington, DE 19803, USA Fax: +1 302 478 8173 e-mail: jonasinc@steamcycle.com website: www.steamcycle.com
6 April 2005 Gdynia Poland	Environmental Degradation of Constructions Workshop (EFC Event No. 282)	Professor Kazimierz Darowicki Department of Anticorrosion Technology Technical University of Gdańsk Narutowicza 11-12 St. 80952 Gdańsk, POLAND Fax: +48 58 347 1092 e-mail: zak@chem.pg.gda.pl
13-16 April 2005 Villars de Lans France	4 th International Workshop on Application of Electrochemical Techniques to Organic Coatings (EFC Event No. 278)	Dr Sebastien Duval Institut Français du Pétrole, Echangeur de Solaize, 69390 Vernaison, France Fax: +33 4 78 02 21 41 e-mail: sebastien.duval@ifp.fr
28-29 April 2005 Barcelona Spain	EUROINTERFINISH2005 - Surface Technology for Novel Materials	REUNIONS I CIÈNCIA Calàbria, 273-275 08029 Barcelona, Spain Fax: +34 93 430 32 63 e-mail: eurointerfinish@reunionsciencia.es
2-4 May 2005 Cadiz Spain	Electrocor 2005 First International Conference on the Simulation of Electrochemical Processes	Caroline Weaver Conference Secretariat Electrocor 2005 Wessex Institute of Technology Ashurst Lodge, Ashurst Southampton, SO40 7AA, UK Fax: +44 (0) 238 029 2853 e-mail: cweaver@wessex.ac.uk website: www.wessex.ac.uk/conferences/
2-5 May 2005 Houston, Texas USA	2005 Offshore Technology Conference	Offshore Technology Conference 222 Palisades Creek Drive Richardson, Texas, USA Fax: +1 972 952 9435 e-mail: service@otcnet.org website: www.otcnet.org

Appendix 10/2

2-6 May 2005 Cadiz Spain	ELECTROCOR 2005 - First International Conference on the Simulation of Electrochemical Processes	Caroline Weaver, Conference Secretariat Electrocor 2005 Wessex Institute of Technology Ashurst Lodge, Ashurst, Southampton SO40 7AA Fax: +44 (0) 238 029 2853 e-mail: cweaver@Wessex.ac.uk website: www.Wessex.ac.uk/conferences/2005/3cor05/index.html
3-5 May 2005 Pomona, California USA	39 th Annual Western States Corrosion Seminar	Sylvia Hall Ameron International, 8627 S. Atlantic Avenue South Gate, CA 90280, USA Fax: +1 323 563 8208 e-mail: info@westernstatescorrosion.org website: www.westernstatescorrosion.org
12-13 May 2005 Shanghai China	Valve World Asia 2005	Valve World Asia P.O. Box 396 7200 AJ Zutphen The Netherlands Fax: +31 575 511099 e-mail: vw.asia@kci-world.com website: www.valve-world.net
17-19 May 2005 Aberdeen UK	Pipeline Operations and Integrity Management (Course)	Linda Hammond Trevor Jee Associates, 26 Camden Road Tunbridge Wells, Kent, TN1 2PT, UK lhammond@tja.co.uk Website: www.tja.co.uk
17-19 May 2005 Morgantown, WV USA	50 th Appalachian Underground Corrosion Short Course	Angela Durham P.O. Box 6070, Comer Building Morgantown, WV 26506-6070 USA Fax: +1 304 293 6751 e-mail: angela@aucsc.com website: www.aucsc.com
18-20 May 2005 Reno, Nevada USA	Fifth International ASTM/ESIS Symposium on Fatigue and Fracture	ASTM Symposia Operations Department 100 Barr Harbor Drive West Conshohocken, Pennsylvania, USA e-mail: hsparks@astm.org website: www.astm.org
6-7 June 2005 Vilnius Poland	Interfaces in Corrosion and its Prevention Workshop (EFC Event No. 285)	Professor Kazimierz Darowicki Department of Anticorrosion Technology Technical University of Gdańsk Narutowicza 11-12 St. 80952 Gdańsk, POLAND Fax: +48 58 347 1092 e-mail: zak@chem.pg.gda.pl
8-10 June 2005 Warsaw Poland	Corrosion 2005 - Science and Economy - New Challenges (EFC Event No. 277)	Dr. Lech Kwiatkowski Institute of Precision Mechanics 3, Duchnicka Str., 01-796 Warsaw, Poland Fax: +48 22 6634 334 e-mail: korozja@imp.edu.pl website: www.imp.edu.pl

Appendix 10/3

27 June - 1 July 2005 Paris France	Ninth International Symposium on the Passivation of Metals and Semiconductors, and the Properties of Thin Oxide Layers – PASSIVITY-9 (EFC Event No. 281)	PASSIVITY-9 ENSCP/LPCS 11 rue Pierre et Marie Curie F-75231 Paris cedex 05, France Fax: +33 (0)1 46 34 07 53 e-mail: passivity9@enscp.jussieu.fr website: www.enscp.jussieu.fr/passivity9
14-18 August 2005 Salt Lake City, UT USA	12 th International Conference on Environmental Degradation of Materials in Nuclear Systems - Water Reactors	TMS Meeting Services 184 Thorn Hill Road, Warrendale, PA 15086, USA Fax: +1 724 776 3770 e-mail: mtgserv@tms.org website: www.tms.org/Meetings/Speciality/ED2005/home.html
29 August – 2 September 2005 Ferrara Italy	10 th European Symposium on Corrosion Inhibitors – 10 th SEIC (EFC Event No. 274)	Prof F. Zucchi Corrosion Study Centre “Aldo Daccò” Department of Chemistry University of Ferrara, Via L. Borsari, 46 44100 Ferrara, Italy Fax: +39 0532 240709 e-mail: zhf@uni.fe.it Website: www.unife.it/corr_study_centre
4-8 September 2005 Lisbon Portugal	EUROCORR 2005 (EFC Event No. 273)	Vitor Alves EUROCORR 2005 Congress Secretariat c/o Top Atlântico Operated by Top Tours Av. D. João II, Lote 1.16.1 1990 - 083 Lisbon, Portugal Fax: +351 218 925 406 e-mail: lisboaeira@cv.ua.pt website: congress.topatlantico.com/eurocorr2005
19-24 September 2005 Beijing China	16 th International Corrosion Congress	Professor Yinshun Wu Chinese Society for Corrosion and Protection, 30 Xue Yuan Lu Rd. Beijing 100083, China Fax: +86 10 8237 2305 e-mail: mail@16ICC2005.com website: www.16ICC2005.com
27-29 September 2005 Lyon France	EUROCOAT 2005 (International Exhibition & Congress)	UATCM 5, rue Etex, 75018 Paris, France Fax: +33 1 42 63 31 50 e-mail: afpva@wanadoo.fr
2-5 October 2005 Pittsburgh, PA USA	6 th International Special Emphasis Symposium on Superalloys 718, 625, 706 and Derivatives	TMS Meeting Services 184 Thorn Hill Road, Warrendale, PA 15086, USA Fax: +1 724 776 3770 e-mail: raabe@tms.org website: cmsplus.tms.org
26-27 October 2005 Besançon France	STIF2C 2005 2 nd International Surface Treatment Institute of Franche-Comté Conference	Pascal Olivier Secretariat of STIF2C 2005 16, Route de Gray 25030 Besançon Cedex, France e-mail: itsfc@univ-fcomte.fr website: www.stif2c.org

Appendix 10/4

2-4 November 2005 Rome Italy	Super-High-Strength Steels - First International Conference	Associazione Italiana di Metallurgia P.le Rodolfo Morandi 2, 20121 Milan, Italy Fax: +39 02 7602 0551 e-mail: aim@aimnet.it website: aimnet.it/shss.htm
5-8 November 2005 Henan China	CICC2005 Third China International Corrosion Control Conference	Xin Yingdi China Chemical Anticorrosion Technology Association No. 1, Liupukang Str., Xicheng, Beijing 100011, China Fax: +86 10 82032181 e-mail: xinyd@ccata.org.cn website: www.ccata.org.cn
12-17 March 2006 San Diego, California USA	CORROSION NACE Expo 2006	NACE International 1440 South Creek Drive Houston, Texas 77084-4906 Fax: +1 281 228 6329 E-mail: msd@mail.nace.org Website: www.nace.org
27-30 March 2006 Saint Paul-lez-Durance France	Corrosion and Long Term Performance of Concrete in Nuclear Power Plants and Waste Facilities International Workshop (EFC Event No. 284)	Dr. Valérie L'Hostis CEA-Scalay, 91191 Gif-sur-Yvette France Fax: +33 1 69 08 84 41 E-mail: lhostis@azurite.cea.fr
20-22 June 2006 Aix-en-Provence France	4th Seminar on Cathodic Protection and Associated Coatings (EFC Event No. 286)	M. Michel Pierre CEFRACOR 28, rue Saint-Dominique 75007 Paris, France Fax: +33 (0) 1 45 55 90 74 E-mail: cefracor@club-internet.fr Website: www.cefracor.org
18-21 September 2006 Fontevraud France	Fontevraud 6 International Symposium on Contribution of Materials Investigation to the Resolution of Problems encountered in Light Water Reactors (EFC Event No. 283)	Patricia Hamel-Bloch SFEN, 67 Rue Blomet F-75015 Paris, France Fax: +33 1 53 58 32 11 E-mail: phamel-bloch@s fen.fr
24-28 September 2006 Maastricht The Netherlands	EUROCORR 2006 (EFC Event No. 280)	Dr. ir. Gerrit Nijhof Netherlands Corrosion Centre (NCC) Boerhaavelaan 40, Postbus 190 2700 AD Zoetermeer, The Netherlands Fax: 0031 79 353 13 65 e-mail: ncc@fme.nl Website: www.corrosiecentrum.nl/eurocorr2006


DECHEMA

 Gesellschaft für
Chemische Technik und
Biotechnologie e.V.

DECHEMA e.V. - PF 150104 - D-60061 Frankfurt am Main

 Prof. Dr. Björn Linder
Swedish Corrosion Institute
Kärftriket 23 A

 104 05 Stockholm
Sweden

 Theodor-Heuss-Allee 25
D-60486 Frankfurt am Main
Telefon (069) 75 64-0
Telefax (069) 75 64-201
E-Mail: info@dechema.de
http://www.dechema.de

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Your Ref.

 Unsere Zeichen
Our Ref.

 Bearbeiter
Contact

 Telefon/Phone
(069) 75 64

 Datum
Date

EFC/GK/WM

-143/-209

26.01.2005

Co-opted membership of the European Federation of Corrosion

Dear Professor Linder

We are pleased to nominate Prof. Dr. Michael Schütze as a co-opted member of the Board of Administrators of the European Federation of Corrosion. This nomination follows the new rules governing co-opted membership, approved by the EFC General Assembly in September 2004.

Professor Schütze is an outstanding scientist in the field of high temperature oxidation and corrosion. He is Director of the Karl-Winnacker-Institut der DECHEMA e.V. and Head of the High Temperature Materials Research Group with presently 11 post-doctoral scientists and several PhD students.

As Chairman of the EFC Working Party on Corrosion by Hot Gases and Combustion Products since 1998 he prepared programmes for sessions at Eurocorr, edited several books and organised four EFC Workshops, among other activities. In 2004 he received the Otto von Guericke Award of AiF, the Association of Industrial Research Societies, Germany. His full curriculum vitae is attached.

We would be pleased if you and the members of the Board of Administrators would positively consider the nomination of Professor Schütze and remain

with best regards,

D E C H E M A

Society for Chemical Engineering and Biotechnology e.V.

Prof. G. Kreysa

Dr. W. Meier

cc: Prof. Schütze, Dr. McIntyre

 Vorsitzender: Dr. A. Oberholz
Schatzmeister: H.-J. Wagner
Geschäftsführer: Prof. Dr. G. Kreysa

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IBAN: DE 37 5001 0000 0004 5000 00
SWIFT-BIC: PBNKDE33


Curriculum vitae

Name: Schütze
 Given Names: Michael Johannes
 Address: Steinrückenstr. 25
 D-63741 Aschaffenburg
 Germany
 Date of Birth: October 23, 1952
 Nationality: German
 Marital Status: Married, 2 children

Degrees

Diploma: 1978, Engineer of Materials Science, University of Erlangen-Nürnberg, Germany
 Doctoral Degree: 1983, Doctor of Engineering Sciences, Technical University of Aachen (RWTH), Germany
 Habilitation: 1991, University Teaching Qualification, Technical University of Aachen (RWTH)
 Professor: 1998, Technical University of Aachen (RWTH)

Career

Positions: 1978 - 1990, Research Scientist at the Karl-Winnacker-Institut der DECHEMA e.V., Frankfurt am Main, Germany
 1991 - today, Head of the High Temperature Materials Research Group (presently 11 PhDs and several PhD students) and the service groups Metallography, Electron Microscopy and Microanalysis of the Institute
 1993, Visiting Scientist at the Institute for Microstructural Sciences of the National Research Council Canada (NRC), Ottawa
 1996 - today, Director of the Karl-Winnacker-Institut
 Research: - High Temperature Oxidation and Corrosion
 - Interaction of Corrosion and Creep
 - Development of Protective Overlay and Diffusion
 Coatings: - Development of Nano-Coatings
 - Mechanical Properties of Protective Surface Scales and Coatings
 - Intermetallics

Other

Awards: 1991, Friedrich-Wilhelm Award of the Technical University of Aachen
 (RWTH) 2000, Rahmel-Schwenk-Medal of GfKORR - Society for Corrosion Protection
 2004, Otto von Guericke-Award of AiF - Association of Industrial Research Societies
 Journals: Co-editor of "Materials and Corrosion"; Wiley VCH, Weinheim
 Member of the International Advisory Board of "Oxidation of Metals", Kluwer Academic/Plenum, New York

Appendix 11/3

Member of the Editorial Board of "Corrosion Engineering, Science and Technology", Maney, Leeds

Publications: More than 200 papers in journals and books, author of two books, editor of 6 books, 19 patents,

Teaching: Technical University of Aachen (RWTH)
Courses in Corrosion Science and Surface Technology (university education)

German Society of Steelmakers (VDEh)
High Temperature Corrosion for Managers in Steel Industry (vocational training)

German Society for Materials Science (DGM)
High Temperature Corrosion and Mechanical Stresses (vocational training)

Society for Chemical Technology (DECHEMA)
Corrosion, Materials Science and Damage Evaluation (vocational training)

Organization of Events: European Federation of Corrosion workshop
"Cyclic Oxidation of High Temperature Materials" (EFC event no. 228),
Frankfurt/Main, 25-26 February 1999
(as chairman)

Gordon Research Conference on
Corrosion, New London/NH, 18-23 July
1999 (as elected conference chairman)

EUROCORR '99,
Aachen, 30 August - 2 September 1999
(as chairman of the organizing committee)

European Federation of Corrosion workshop
"Life Time Modelling of High Temperature Corrosion Processes"
(EFC event no. 248),
Frankfurt/Main, 22-23 February
2001 (as chairman)

European Federation of Corrosion workshop
on "Metal Dusting, Carburisation and Nitridation" (EFC event no. 258)
Frankfurt/Main, 30-31 January 2003
(as co-chairman)

European workshop on "Diffusion
Modelling", Frankfurt/Main, 17-18 December
2003 (as chairman)

European Federation of Corrosion workshop
on "Novel Approaches to the Improvement of High Temperature Corrosion Resistance" (EFC event no. 275),
Frankfurt/Main, 27-29 October 2004
(as chairman)

Topical Conference Sessions
of the European Federation of Corrosion working Party 3 "Corrosion by Hot
Gases and Combustion Products"
in the programmes of

EUROCORRS 1999, 2000, 2001, 2003 and 2004 (as EFC-working party chairman)

Committee work:

European Federation of Corrosion (EFC)

- Working Party Chairman of WP 3
- Member of the Scientific and Technical Advisory Committee

German Accreditation Society for Chemical Industry (DACH)

- Vice Committee Chairman of SK3

Society for Corrosion Protection (GfKORR)

- Member of the Scientific Advisory Board
- Committee Chairman of AK 20
- Managing Director 2001 - 2003 (unsalaried)

Industry and Trade Chamber (IHK)

- Member of the examination board for certified corrosion experts

National Association of Corrosion Engineers (NACE), USA

- Member of the International Strategies Operational Committee

International Standards Organization (ISO)

- Work group convenor of ISO TC 156 WG 13

European commission (EC)

- Project Coordinator of COTEST
- Proposal evaluator in several programmes
- Research contractor in several programmes

Association of Industrial Research Societies (AiF)

- Research proposal evaluator in GAG 1

German Science Foundation (DFG)

- Proposal evaluator for research projects and special research area groups (SFB)

Memberships:

ASM, DECHEMA, DGM, DKG, EFC, E-MRS, GfKORR, IoC, IoM (Fellow), NACE, TMS, VDEh, VDI-W

Frankfurt/Main, 12 January 2005

Michael Schütze



CENTRE FRANÇAIS DE L'ANTICORROSION

Paris, 9 February 2005

Prof. Björn LINDER
EFC President
Aludvägen 3C
112 65 STOCKHOLM
Sweden

Co-opted membership for BoA of the European Federation of Corrosion

Dear Professor Linder,

We are pleased to nominate Prof. Philippe MARCUS as co-opted member of the Board of Administrators of the European Federation of Corrosion.

This nomination follows the new rules governing co-opted membership, approved by the EFC General Assembly in September 2004.

Prof. Marcus is an outstanding scientist on Surface Sciences and remarkable organiser of his laboratory, his Working Party n° 6 and remarkable manager in the organisation of the last EUROCORR 2004 in Nice.

We would be please if you and the members of the Board of Administrators would positively consider the nomination of Prof. MARCUS.

With Best Regards.

Gérard PINARD LEGRY
President of CEFRACOR

Jean-Pierre DAL PONT
Chief Executive SCI

Philippe BERGE
EFC General Secretariat
Paris Office

Attachement : Short summary of Prof. Marcus present activities

C.c. : Prof. Ph. Marcus, Dr. P. McIntyre

Association régie par la loi 1901 - Membre de la Fédération Européenne de la Corrosion
28, rue Saint-Dominique, 75007 Paris - Tél. : 33 (0)1 47 05 39 26 - Fax : 33 (0)1 45 55 90 74
e-mail : cefracor@club-internet.fr - [http : //www.cefracor.org](http://www.cefracor.org)
CCP 30041/00001/1781672F020 / 92 - n° Identification Intracommunautaire : FR 47 378 036 883 - Siret : 378 036 883 00015

Pr. Philippe Marcus is Director of Research at CNRS (Centre National de la Recherche Scientifique) and Director of the Laboratory of Physical Chemistry of Surfaces at Ecole Nationale Supérieure de Chimie de Paris, France. Dr Marcus received his Ph.D. (1979) in chemistry from the University Pierre and Marie Curie, Paris, France.

His research interests include the mechanisms of corrosion of metals and alloys, passivity, passivity breakdown and localized corrosion and the applications of advanced surface analytical methods, such as X-ray Photoelectron Spectroscopy and *in situ* Scanning Tunneling Spectroscopy, in corrosion science and engineering.

Philippe Marcus is the author or co-author of over 300 papers, book chapters and books in the areas of corrosion science, surface electrochemistry, and materials science. He serves on the editorial board of three major corrosion journals : Corrosion Science, Materials and Corrosion, and Corrosion Engineering, Science, and Technology. He is also on the editorial board of *Electrochimica Acta*. He is the Editor of *Corrosion Mechanisms in Theory and Practice* (M. Dekker).

He is currently chairman of the Working Party of the European Federation of Corrosion on Surface Science and Mechanisms of Corrosion and Protection, and of the Division 4 of the International Society of Electrochemistry on Electrochemical Materials Science. He is Chairman of the Scientific and Technical Committee of CEFRA COR.

Pr. Marcus has been very active in the European Federation of Corrosion. He started his collaboration with the EFC in 1981 as scientific secretary of the Working Party Surface Science and Mechanisms of Corrosion and Protection. Later he became Chairman of this Working Party. He has been a member of the Science and Technology Advisory Committee for many years, as Working Party Chairman and as elected member.

Under his chairmanship of the Working Party on Surface Science and Mechanisms of Corrosion and Protection, this WP has carried out collaborative research programs including Pound Robins on combined AES/ESCA characterization of passive films, which have been published in international journals, and have become a reference in the field. More recently the Working Party has developed a reference material and guidelines for the application of *in situ* Scanning Tunneling Microscopy in Corrosion Research (in press in the EFC series). Pr. Marcus has organized or co-organized, with his Working Party, several sessions of EUROCORR conferences in Germany, England, Finland, The Netherlands, Hungary and France. Recently he was the Chairman of EUROCORR 2004, held in Nice (F) which was a very successful edition of EUROCORR (with more than 650 participants from over 50 countries).



Sociedad Española
de Química Industrial
e Ingeniería Química

DEPARTAMENTO DE INGENIERÍA
QUÍMICA Y METALURGIA
Facultad de Química
Universidad de Barcelona
C/ Martí i Franqués, 1, 6ª planta
08028 BARCELONA
Tel. 34 – 934029013 FAX. 34 – 934021291
e-mail: sequi@angel.qui.ub.es
CIF/NIF: G58384124

B. A. Rickinson
The Institute of Materials, Minerals and Mining
European Federation of Corrosion
1 Carlton House Terrace
London SW 1 Y 5DB
United Kingdom

Dear Dr.,

We would like to inform you that the " Sociedad Española de Química Industrial e Ingeniería Química " have not the intention to sponsor the medal " Martí i Franqués " in the future.

We wish to thank you and the Board members of EFC the support and help, we have received during the time that we have been sponsoring that mentioned Award.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'Jaume Soley', written over a horizontal line.

Dr. Jaume Soley

President of SEQUI

RECEIVED 2 2 MAY 2004

EUROPEAN FEDERATION OF CORROSION

STATUTES

revised version
as approved and adopted by the General Assembly
Bournemouth/UK, 31 October 1994
and including the change of address approved by the
Board of Administrators in Granada on 27 September 2002

Original in French published in LE MONITEUR BELGE, July 27, 1995

Identification Number: 12698/95

I. NAME, LOCATION, OBJECTIVES, DURATION

Article 1. An international association with a scientific purpose is established, in accordance with the Belgian law of October 25, 1919, modified by that of December 6, 1954, named

"Fédération Européenne de la Corrosion", "European Federation of Corrosion", "Europäische Föderation Korrosion", abbreviated to "EFC".

Article 2. The headquarters of the association is located in a district of the greater Brussels metropolitan area. It is currently located at Ave. Paul Héger, grille no. 2, 1000 Bruxelles. It may be transferred to any other address in the metropolitan area by decision of the Board of Administrators, published in the Annex of LE MONITEUR BELGE.

Article 3. The purpose of the association, registered as a non-profit organisation, 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 significantly to these areas of activity and by collaborating with similar associations throughout the world.

The EFC is established for an indefinite period.

II. MEMBERS

Article 4. The association is composed of founder members, full members, associate members, honorary members and individual members.

The following are founder members:

1. Branche Belge de la Société de Chimie Industrielle,
Rue Ravenstein, 3, 1000 Bruxelles (Belgium)
2. DECHEMA, Deutsche Gesellschaft für Chemisches Apparatewesen e.V.
Theodor Heuss Allee 25, Frankfurt am Main (Germany)
3. Society of Chemical Industry,
14, Belgrave Square, London SW1 (United Kingdom)
4. Société de Chimie Industrielle,
28, rue Saint-Dominique, 75007 PARIS (France)

Full members

Article 5.1. European scientific and technical societies and associations complying with the objectives of article 3 may become full members. These societies and associations must be non-profit organisations.

Article 5.2. All applications for membership must be addressed in writing to one of the offices of the General Secretariat (EFC), which shall submit them to the Board of Administrators. On the basis of a report by the latter, the General Assembly shall make the final decision on acceptance or rejection of the application for membership.

Associate members

Article 6.1. Scientific and technical societies and associations and all other organisations not satisfying the requirements stipulated in article 3 may become associate members.

Article 6.2. All applications for membership must be addressed in writing to one of the offices of the General Secretariat (EFC), which shall submit them to the Board of Administrators. On the basis of a report by the latter, the General Assembly shall make the final decision on acceptance or rejection of the application for membership.

Individual members

Article 6 bis. Any person interested in actively participating in one of the Working Parties of the Federation may become an individual member. Applications for individual membership must be addressed in writing to one of the offices of the General Secretariat of the Federation.

Honorary members

Article 7. The General Assembly may confer the title of honorary member on any individual having made, in the opinion of the Board of Administrators, a particular contribution to the achievement of the aims of the Federation.

Article 8. Any member has the right to resign from the Federation (EFC). He must give notice of this decision in writing to one of the three offices of the General Secretariat of the Federation. Resignation becomes effective only at the end of the year in which written notification has been presented.

Article 9. Any member who fails to respect the obligations devolving upon him by the present statutes may be excluded from the Federation (EFC).

It is the duty of the Board of Administrators, after hearing the defence of the member concerned, to report to the General Assembly which has the sole power of decision in the matter.

III. SUBSCRIPTIONS

Article 10. The amount of the annual subscription for member societies is adopted by the General Assembly on the proposal of the Board of Administrators.

In all cases, the General Assembly shall decide, if necessary, the manner in which the funds shall be managed as well as the disposal of the funds in the event of dissolution of the Federation.

IV. ADMINISTRATION

Article 11. The Federation (EFC) is administered and managed by a Board of Administrators composed of at least three members representing respectively the member societies of France, Germany and the United Kingdom, of a member representing a Belgian member society in accordance with Belgian law, as well as of a maximum of six members representing member societies of different countries. These six members shall rotate progressively every three years so that all the member societies of the different countries belonging to the Federation may participate in equitable manner in the running of the Federation.

Administrators are elected by the General Assembly. For this purpose, the founder members and full members of the same nation shall agree on the nominee for their country. The General

Appendix 14/4

Assembly shall endeavour to maintain on the Board of Administrators a balance between representatives of industry and academia.

Administrators are elected for a period of three years without any form of remuneration. At the expiry of their term of office, administrators are re-eligible for a maximum of two further terms of office.

Administrators may be dismissed by the General Assembly by a majority decision of two-thirds of the founder members and full members present or represented.

Article 12. The President, the Vice-President and the Treasurer are elected by the General Assembly on a proposal by the Board of Administrators.

The President is elected among the members of the Board of Administrators for a period of two years with the possibility of chairing two successive General Assembly meetings and the right to re-election for one further term of office of one or two years.

The President is assisted during this term of office by his predecessor and by a Vice President.

The meetings of the Board of Administrators are chaired by the President.

Article 13. The Board of Administrators meets at least once a year, whether convened by the General Secretariat or at the request of at least four members.

An Administrator may be represented by a fellow administrator who, however, can exercise only one proxy vote.

The Board of Administrators can validly deliberate only if at least half of its members are present or represented.

Article 14. The resolutions of the Board of Administrators are adopted by the majority of the administrators present or represented. In the event of an equality of votes, the President shall have the casting vote.

Resolutions are recorded in the minutes of the meeting by the General Secretariat and communicated to the members of the Federation.

Article 15. The Board of Administrators has, among other responsibilities, the duty to propose bye-laws to the General Assembly and to set up, or approve the creation of, study groups/task forces and working parties.

V. GENERAL SECRETARIAT

Article 16. The work of the Secretariat of the Federation (EFC) is performed by a General Secretariat.

At the headquarters of the EFC in Brussels there is an office permanently assigned to assisting the General Secretariat in the performance of its duties.

The General Secretariat convenes the meetings of the Board of Administrators and of the General Assembly.

The General Secretariat records and dispatches the minutes of the meetings of the Board of Administrators and of the General Assembly.

VI. GENERAL ASSEMBLY

Article 17. The General Assembly is fully empowered to ensure the accomplishment of the objectives of the Federation (EFC).

The General Assembly is composed of representatives of all founder members and full members. Representatives of associate members and the honorary members may attend General Assembly meetings in a consultative capacity.

The following are notably reserved to the competence of the General Assembly

- admission or exclusion of members
- election, removal or replacement of administrators
- adoption of the budget, adoption of a system of subscriptions, eventual creation of special funds, approval of accounts
- changes in the structure of the General Secretariat
- adoption of bye-laws
- modification of the statutes
- dissolution of the Federation
- election of a President, a Vice-President and a Treasurer.

Article 18. The General Assembly meets *ipso jure* once a year in a place and at a time set by mutual agreement by the Board of Administrators.

The General Assembly may also be convened for an extraordinary meeting at any time the Board of Administrators may deem necessary. In such an event, the meeting shall take place at the headquarters of the Federation or in any other Location indicated by the Board of Administrators.

Article 19. The General Assembly is chaired by the President in office of the European Federation of Corrosion.

The calls to members and the agenda of the meeting, written by the Board of Administrators, are dispatched by the General Secretariat at least thirty days before the date of the meeting.

Article 20. Founder members and full members may both be represented at the General Assembly by a fellow member acting as proxy. However, a founder member or full member may not hold more than three proxy votes.

The General Assembly, unless provision to the contrary is stipulated by law or in the statutes, may validly deliberate only if half of its members are present or represented. In the event of this condition not being fulfilled, another General Assembly shall be convened, within three months, and shall validly deliberate, irrespective of the number of members present or represented.

Article 21. In all cases, resolutions are adopted by a simple majority of the founder members and full members present or represented, and they are notified to all members.

It is not possible to deliberate on any item which is not on the agenda.

Resolutions of the General Assembly are recorded in the minutes written by the General Secretariat and communicated to the members.

Article 22. Without prejudice to article 5 of the Belgian law of 25 October, 1919, any proposal to modify the statutes or dissolve the Federation (EFC) must proceed from the Board of Administrators or from at least four full members, representing different countries.

The Board of Administrators must notify the members of Federation at least three months in advance of the date of the General Assembly meeting which will rule on the aforesaid proposal.

No decision shall be validly made unless it is supported by a two-thirds majority of all the full members of the Federation.

If the General Assembly meeting in question has not convened two thirds of the founder members or full members of the Federation (EFC), another General Assembly shall be called under the same conditions as stated above and shall rule definitively and on the said proposal.

Modifications to the statutes shall become effective only after approval by Royal Decree and after due respect of the relative conditions of publication stipulated by article 3 of the Belgian law of October 25 1919.

The General Assembly shall determine the mode of dissolution and winding up of the Association.

VII. REPRESENTATION

Article 23. All acts binding the Federation with regard to third parties, of either financial or legal nature, which are not part of day-to-day business, shall be signed jointly by three administrators duly empowered to act accordingly on a case-by-case basis by the Board of Administrators.

Article 24. Lawsuits, whether as plaintiff or defendant, are pursued through due action and proceedings by the Board of Administrators represented by an administrator appointed by the Board of Administrators.

VIII. GENERAL PROVISIONS

Article 25. All matters for which no provision is made in the present statutes, notably with regard to publications in LE MONITEUR BELGE, shall be conducted in accordance with Belgian law.

Approved by

1. D. HARROP, London (United Kingdom)
President
2. CEBELCOR
A. Pourbaix, Bruxelles (Belgium)
3. DECHEMA
G. KREYSA, Frankfurt (Germany)
4. THE INSTITUTE OF MATERIALS, MINERALS AND MINING
B. A. RICKINSON, London (United Kingdom)
5. SOCIETE DE CHIMIE INDUSTRIELLE
J. P. BERGE, Paris (France)

BYE-LAWS OF THE EUROPEAN FEDERATION OF CORROSION (EFC)

1 THE OBJECTIVE OF THE EFC AND INTENTION OF THE BYE-LAWS

- 1.1 The Objective of the EFC, given in Article 3 of the Statutes, is as follows:

"The purpose of the association, registered as a non-profit organisation, 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 significantly to those areas of activity and by collaborating with similar associations throughout the world."

- 1.2 The Bye-Laws are intended to provide EFC with working rules which conform to the letter and spirit of the Statutes which are lodged in Belgium (decree of 4 July 1983 and modified in November 1994 and September 2002).

2 WORKING PRINCIPLES OF THE EFC

The work of the EFC is based on collaboration between its Member Societies - the "Full Members" as described in Article 5.1 of the Statutes (and quoted in para. 4 below). Nothing done by or in the name of the EFC shall detract from the autonomy of any Member Society. Thus, all the technical and scientific activities of the EFC are carried out by, or in close cooperation with, the Member Societies or their representatives.

As a general rule, all matters of a financial, constitutional or legal nature are considered by a Board of Administrators (para. 14); all matters of a scientific and technical nature are considered by a Science and Technology Advisory Committee (para. 15), with both bodies being responsible to a General Assembly (para. 13) composed of delegates from Member Societies.

A President, Vice-President and Treasurer (Article 12 of the Statutes) are elected by the General Assembly on a proposal from the Board of Administrators (see 14.2).

3 WORKING METHODS OF THE EFC

The EFC seeks to achieve its objective by any or all of the following means:

- 3.1 providing opportunities for the exchange of views on corrosion and corrosion control;
- 3.2 providing sources of information and education on corrosion and corrosion control;
- 3.3 promoting the documentation of information and its access on corrosion and corrosion control;
- 3.4 providing, when appropriate, assistance to Member Societies;
- 3.5 cooperating with other appropriate organisations or institutions, within or outside Europe;
- 3.6 establishing Working Parties and, as necessary, Task Forces (para. 17) to survey and report on specific areas of corrosion science and technology;
- 3.7 encouraging meetings for the discussion of the science and technology of corrosion; normally, meetings of this type will be organised by the national Member Society or Societies: meetings may also be organised on specific topics by an appropriate Working Party, often with the encouragement and support of industry, and in such cases the national society or societies should be informed to ensure that there is no clash of interests;
- 3.8 preparing a Calendar of Events which lists all corrosion-related events together with meetings organised by, or supported by, Member Societies that will attract an EFC event number (see para. 19);
- 3.9 preparing a Newsletter to disseminate information about work in the fields of corrosion and corrosion prevention and the activities of Member Societies and of the EFC generally;
- 3.10 encouraging Member Societies to issue invitations to members of other EFC Member Societies to attend functions and meetings held by them on favourable terms;

4 FULL MEMBERS' RIGHTS

Full Members¹ are defined in Article 5.1 of the Statutes as follows:

"European scientific and technical societies and associations complying with the objectives of Article 3 may become full members. These societies and associations must be non-profit organisations".

Full Members are entitled to:

- 4.1 be represented in the General Assembly (see para. 13);
- 4.2 receive agenda, working papers and minutes of meetings of the General Assembly;
- 4.3 propose candidates to the Board of Administrators (para. 14) and the Science and Technology Advisory Committee (para. 15) and appoint delegates to EFC Working Parties (para. 16);
- 4.4 have the benefit of the participation of their individual members in EFC Working Parties as a matter of right and without any payment;
- 4.5 provide the Secretariat of a Working Party;
- 4.6 volunteer to host a EUROCORR event (para. 20);
- 4.7 propose the formation of an EFC Working Party;
- 4.8 register meetings as EFC events;
- 4.9 receive current information via the EFC Newsletter and receive, on request, up to thirty additional copies of the Newsletter free of charge;
- 4.10 propose nominees for medals awarded by, or in conjunction with, the EFC.

N.B. The rights, as defined in 4.1 - 4.10, of FULL MEMBERS, are maintained for so long as the Member Society is not in arrears in payment of its subscription for more than twelve months from the date of issue of the invoice by the EFC Treasurer (see para. 12.4).

¹Note that the terms 'Full Members' and 'Associate Members' refer to societies and not to individual persons

5 FULL MEMBERS' DUTIES

The duties of Full Members are:

- 5.1 to be represented in the General Assembly;
- 5.2 to inform the Paris Secretariat of the EFC of the intention, or otherwise, to be represented at the General Assembly with, if possible, the name of the delegate;
- 5.3 to nominate delegates to EFC Working Parties;
- 5.4 to ensure that their individual members are aware of the activities of the EFC including the opportunities for membership of Working Parties without further payment;
- 5.5 to make nominations for places on the EFC Board of Administrators and the Science and Technology Advisory Committee;
- 5.6 to inform EFC, through the Scientific Secretary, of activities such as symposia, special meetings, etc., in their countries, that would be of importance to other Member Societies;
- 5.7 to ensure, wherever possible, that delegates to EFC committees, working parties, etc., receive financial support, in whole or in part, for attendance at these committees;
- 5.8 to pay to the EFC (London Office (see para. 10.1)) on receipt of the invoice from the EFC Treasurer an annual membership subscription as agreed by the General Assembly (see para. 12.1 and, for non-payment, para. 12.4).

6 ASSOCIATE MEMBERS' RIGHTS

Associate Members are defined in Article 6.1 of the Statutes which states:

"Scientific and technical societies and associations and all other organisations not satisfying the requirements stipulated in Article 3 may become associate members."

Associate Members may:

- 6.1 be represented in the General Assembly without voting rights;
- 6.2 receive current information about the EFC and related matters through the Newsletter of which one copy will be supplied free of charge.

N.B. Associate Members are not required to pay a subscription to the EFC: individuals belonging to these societies, in common with all who do not belong to EFC Member Societies, will be required to make a financial contribution to the EFC for each EFC Working Party which they wish to join to defray administrative costs: this contribution is not required from Working Party members who belong to a Member Society having Full Membership status in the EFC (see also para. 8).

7 ASSOCIATE MEMBERS' DUTIES

The duties of Associate Members are to:

- 7.1 inform the EFC, via the Scientific Secretary, about activities, symposia, special meetings, etc., relevant to corrosion, that are planned within the country of the Associate Member;
- 7.2 inform their members and specialist committees about the scientific and technical activities of the EFC.

8 INDIVIDUAL MEMBERS

There are no individual members of the EFC since the membership of the EFC is restricted to Member Societies. However, the Statutes (Article 6 bis) allow for individual members to participate in the work of EFC Working Parties.

It is expected that such individual members of Working Parties would belong to one of the Member Societies of the EFC having Full Members' rights. Where, for any reason, an individual wishing to join a Working Party does not belong to a Member Society, that person will be required to pay an annual contribution towards the administrative costs of the EFC. The level of this contribution will be set by the Board of Administrators and submitted to the General Assembly for approval. (See also Directives for Working Parties included with these Bye-Laws).

Applications to become a personal member of an EFC Working Party should be addressed to the Chairman of the Working Party.

9 FOUNDER MEMBERS

Founder Members are described in Article 4 of the Statutes.

The duties of Founder Members representing Member Societies in Belgium, France, Germany and the UK are to attend meetings of the Board of Administrators of which they are members *ex officio*. Thus, the Board of Administrators must include a representative of each Founder Member, or a person from a Member Society in the country of that Founder Member.

10 SECRETARIATS

10.1 General Secretariat

The administration of EFC is carried out by a General Secretariat consisting of three Offices at the following organisations:

DECHEMA e.V., (Deutsche Gesellschaft für Chemisches Apparatewesen), Frankfurt am Main, GERMANY;
(referred to as the Frankfurt Office)

The Institute of Materials, London, UK;
(referred to as the London Office)

Société de Chimie Industrielle, Paris, FRANCE;
(referred to as the Paris Office).

Administrative tasks are undertaken by these Offices as follows:

Membership of the EFC.....the Frankfurt Office;

Maintenance of membership records of the Board of Administrators, Science and Technology Advisory Committee, and Working Parties, and notification of elections and appointments to these.....the Frankfurt Office

Arrangements for meetings of the General Assembly and the Board of Administrators (not for the Science and Technology Advisory Committee).....the Paris Office

Finance.....the London Office

10.2 Other Secretariats

The Belgian Office, mentioned in the Statutes, has responsibility for maintaining liaison between EFC and the Belgian Administration. It is underwritten by the Branche Belge de la Société de Chimie Industrielle.

There is provision for the establishment of further Secretariats, if need be, to carry out special tasks. The establishment of such further Secretariats will require the approval of the General Assembly which can terminate their activities according to the circumstances.

11 LANGUAGES

The official languages of the EFC shall be the languages of the Offices of the General Secretariat.

12 FINANCE

12.1 Subscriptions

In accordance with Article 10 of the Statutes, "The amount of the annual subscription for Member Societies is adopted by the General Assembly on the proposal of the Board of Administrators".

Invoices for annual subscriptions will be issued to those Member Societies having Full Member status by the Treasurer of the EFC in April each year and should be paid by the end of November in that year.

12.2 Budget

A budget will be prepared by the Board of Administrators and submitted to the General Assembly for approval. This budget will be implemented from January 1st of the year following the approval of the General Assembly. The budget will be included in the working papers for the General Assembly meeting and circulated to Full Members prior to the meeting.

12.3 Balance Sheet

A balance sheet prepared by the Finance Officer of The Institute of Materials and the EFC Treasurer will be submitted to the Board of Administrators and the General Assembly.

12.4 Non-Payment of Subscriptions

A Member Society shall be deemed to have left the EFC when the annual subscription is in arrears of more than twelve months from the date of issue of the invoice. However, an enquiry will normally be made to the Member Society by the Frankfurt Office - as responsible for membership matters - before action is taken to exclude a Member Society.

A Member Society whose membership has lapsed through non-payment of its subscriptions may not rejoin the EFC until a period of three years has elapsed unless they pay any subscriptions owing.

12.5 Special Funds

The General Assembly may authorise the collection of funds to carry out special tasks that fall within the remit of the EFC.

12.6 Financial Contributions

The EFC and/or its Working Parties may accept financial contributions from other bodies, including industry, for general support. Such contributions will be recognised in the annual balance sheet. Where contributions are made for specific activities, for example, for a Working Party task or meeting, the publicity or report of this activity shall be described as being of EFC origin with acknowledgement of the contribution from the other party.

12.7 Honorary Service

All members of the General Assembly, the Board of Administrators, and the Science and Technology Advisory Committee, serve in an entirely honorary capacity. The President and the Treasurer of the EFC serve in an honorary capacity, but are entitled to claim travel and subsistence funds for tasks entrusted to them by the General Assembly.

Members of the Board of Administrators and the Chairman of STAC may, in exceptional circumstances (for example, where there are no funds available from a Member Society or employer), apply to the EFC Treasurer for some financial assistance towards the costs of attending a Board meeting.

13 GENERAL ASSEMBLY

The General Assembly considers the present and future activities of the EFC, provides policy guidance to the Board of Administrators and the General Secretariat, approves the budget for the forthcoming year, and takes decisions on important matters affecting the role of the EFC.

13.1 Composition of the General Assembly

Three groups of people are entitled to attend meetings of the General Assembly, as follows:

- 1 Representatives of Member Societies with the status of Full Members: the representatives shall preferably be specialists in the field of corrosion. Only one nominated member of each Member Society is entitled to vote;
- 2 Representatives from bodies with Associate Member status may attend the General Assembly but without voting rights;
- 3 Members of the Board of Administrators, the Science and Technology Advisory Committee, and Working Parties may attend the General Assembly but without voting rights except when present as a nominated representative as described in 1 above.

The Chairman of the General Assembly will be the President of the EFC.

13.2 Duties of the General Assembly

The duties of The General Assembly are to:

- 1 take decisions on all matters of principle concerning the work of the EFC;
- 2 consider the long-term development of corrosion research and corrosion control and suggest fields of work to which particular attention should be directed;
- 3 appoint the members of the Board of Administrators following the results of a call for nominations made to the Member Societies (see para. 14.1);
- 4 appoint the members of the Science and Technology Advisory Committee following the results of a call for nominations made to the Member Societies (see para. 15.1);
- 5 approve the appointments, if the nominations are considered to be appropriate, of the following officers of the EFC as put forward by the Board of Administrators:

the President;
the Vice-President;
the Treasurer;
the Scientific Secretary;

- 6 receive and approve reports from the Board of Administrators and the Science and Technology Advisory Committee on their activities and decisions;
- 7 approve the time, place and scope of EUROCORR events as recommended by the Board of Administrators on the basis of offers made by Member Societies following a call for proposals;
- 8 approve, on the recommendation of the Board of Administrators, the level of subscriptions of Member Societies and of individual members of Working Parties;
- 9 approve a budget for income and expenditure for the calendar year following the year in which the General Assembly is held;
- 10 decide on applications for new Members;
- 11 decide on modifications to the Statutes and Bye-Laws of the EFC as and when required.

13.3 Working Procedures of the General Assembly

- 1 The General Assembly shall meet on the occasion of an EFC event, and preferably at EUROCORR (see para. 20).
- 2 If the same representative is appointed by more than one Member Society that representative may exercise each Society's vote on its behalf: the number of votes that the representative may cast is limited to three.
- 3 Proxy voting on behalf of any Member Society is acceptable on the basis of a written authority from the Member Society concerned which must be given to the President before the start of the General Assembly meeting.

- 4 Voting, when necessary, will be by a show of hands unless the representative of a Member Society with Full Member status requests a secret ballot, in which case it will be held; two scrutineers selected from non-voting delegates should be appointed with the approval of the voting delegates; (matters on which a vote could be requested will normally be emphasised in the working papers for the General Assembly meeting so that Member Societies can instruct their voting representative in advance).
- 5 The minutes of the General Assembly meeting will be taken by a member of one of the three Offices of the General Secretariat and will record the discussions leading to recommendations and decisions reached at the meeting; the minutes will be presented in the English language.
- 6 Those persons responsible for implementing decisions reached at the General Assembly should be identified in the minutes.
- 7 The date, venue and provisional agenda for a meeting of the General Assembly will be notified by the Paris Office of the General Secretariat to the Secretaries of Member Societies - or to those appointed by a Society to respond to EFC business - at least three months in advance of the meeting.
- 8 The working papers for the General Assembly meeting will be prepared and issued by the Paris Office of the General Secretariat at least one month before the meeting.
- 9 Notice of intention to be present at the General Assembly should be sent to the Paris Office not less than two weeks before the meeting (failure to comply with this request will not prevent attendance at the meeting, the purpose is to enable an attendance list to be made available for delegates on arrival at the meeting).

4 THE BOARD OF ADMINISTRATORS

The composition and responsibilities of the Board of Administrators are defined in Articles 11, 12, 13 and 14 of the Statutes.

14.1 Membership of the Board of Administrators

Five groups of people are entitled to attend meetings of the Board of Administrators, as follows:

- 1 One member representing the Member Societies in the countries of the Founder Members, together with six other elected members representing Member Societies with Full Member status in six different countries. The six different countries may include one or more of those of the Founder Members. Thus, the representatives from the Founder Member countries are appointed by those countries, whereas the remaining six members are elected by the General Assembly. Only these ten members are entitled to vote.

The Frankfurt Office will issue a call for nominations at least six months before the date of the General Assembly at which the election will be made. The nominations will be submitted by the Frankfurt Office to the President of the EFC who should ensure that the "six country representation" will be met. The President should seek further nominations from Member Societies, if necessary, to ensure that this requirement is met. The President may not withhold any nomination.

The list of nominations shall be sent by the President to the Paris Office for inclusion in the working papers for the General Assembly.

The President and Vice-President of the EFC are elected from among the members of the Board of Administrators and remain members after appointment to these offices; these appointments do not result in vacancies on the Board, the membership of which does not normally exceed ten persons.

- 2 The Chairman of the Science and Technology Advisory Committee, the Scientific Secretary and the EFC Treasurer are invited to attend meetings of the Board of Administrators in an ex officio capacity without the right to vote.
- 3 A representative from each of the three Offices of the General Secretariat and from the Belgian Secretariat shall take part in the meetings of the Board of Administrators without the right to vote.
- 4 A minutes secretary (see para. 14.3).
- 5 Further members may be co-opted into the Board of Administrators by decision of the elected members and approval of the General Assembly, should the need arise. Co-opted members have no voting rights unless elected to the post of President or Vice-President.

The term of office of members of the BoA is three years. At the expiry of their term of office, administrators are re-eligible for a maximum of two further terms of office.

On resignation, a member of the Board of Administrators will be replaced by a person nominated by a Member Society in the country of the resigned member and without further approval by the General Assembly.

14.2 Duties of the Board of Administrators are to:

- 1 prepare proposals for the General Assembly;
- 2 ensure that resolutions of the General Assembly are carried out;
- 3 take any necessary decision on behalf of the EFC between the meetings of the General Assembly in accordance with the Statutes and Bye-Laws;
- 4 supply the General Assembly with a report of its activities and decisions;
- 5 liaise with the Science and Technology Advisory Committee on the establishment of new EFC Working Parties;

- 6 recommend, on the basis of submissions received, the host country for EUROCORR at least three years in advance of the proposed date and submit the recommendation for approval to the General Assembly;
- 7 prepare a budget of income and expenditure and a balance sheet for submission to the General Assembly;
- 8 approve, in advance, items of expenditure to be incurred by the Scientific Secretary and Honorary Officers of the EFC;
- 9 propose from among its members a President and a Vice-President of the EFC; the proposal to be forwarded to the General Assembly for approval.

14.3 Working Procedures of the Board of Administrators

- 1 The Board of Administrators may be referred to as the BoA.
- 2 The BoA shall be chaired by the EFC President.
- 3 A meeting of the BoA will be notified to its members at least three months in advance.
- 4 A provisional agenda and working papers will be prepared and distributed to members by the Paris Office, preferably not less than one month before the date of the meeting.
- 5 A member of the BoA may be represented by a person nominated from the country of the member; the nominee may exercise only one proxy vote.
- 6 The chairman and four other members of the BoA constitute a quorum.
- 7 Minutes of the BoA meetings will be taken by a member of the Paris Office, or by some other person at the request of the Paris Office.

- 8 The minutes will be circulated only to members of the BoA and others present at the meeting and should identify those members of the BoA to be responsible for the actions arising from the meeting.
- 9 Generally, the meetings of the BoA will be hosted by one of the Offices of the General Secretariat and will take place in Frankfurt, London or Paris. Liaison with the host will be the responsibility of the Paris Office (see also 4 above).
- 10 The BoA must meet at least once per year.

15 THE SCIENCE AND TECHNOLOGY ADVISORY COMMITTEE

The Science and Technology Advisory Committee shall advise the EFC on scientific, technological and educational matters and the implementation of decisions concerning these.

15.1 Membership of the Science and Technology Advisory Committee

Four groups of people may attend meetings of the Science and Technology Advisory Committee, as follows:

1 Elected members

The General Assembly shall elect six members from names submitted by Member Societies having Full Member status. The Frankfurt Office will issue a call for nominations at least six months before the date of the General Assembly at which the election is to be made. The nominations should be submitted by the Frankfurt Office to the BoA who will examine the list of candidates to ensure that at least five European countries will be represented in the list for submission to the General Assembly. The BoA may not withhold any name from the list but will seek to obtain further nominations from Member Societies if the "five country representation" requirement is not being met. The list of nominations should be included in the working papers for the General Assembly.

The six elected members may exercise a vote in the Science and Technology Advisory Committee.

It is desirable that elected members include representation from industrial organisations, including consultants.

The elected members of STAC shall hold office for three years and may be reappointed.

- 2 Chairmen of EFC Working Parties are full members with the same voting rights as elected members.
- 3 The President and Vice-President of the EFC as well as representatives of the EFC Secretariat may attend meetings but without voting rights.
- 4 Others who can contribute to the work of the EFC may attend meetings of the Science and Technology Advisory Committee by invitation but without voting rights.

15.2 Duties of the Science and Technology Advisory Committee

- 1 To establish technical Working Parties (see para. 16) in accord with the Objective of the EFC (para. 1).
- 2 To receive and discuss reports from the Working Parties.
- 3 To encourage Working Parties to publish their reports and, preferably, in an EFC series.
- 4 To participate in the arrangements for the technical sessions at EUROCORR.
- 5 To advise the BoA on the venue for EUROCORR
- 6 To elect from among its members the juries for the EFC Medal, the Cavallaro Medal, and the Marti Franques Medal (see para. 21).
- 7 To select and prepare scientific and technical items for the Agenda of the General Assembly.
- 8 To report to the General Assembly, via the Scientific Secretary, on the activities of the STAC.
- 9 To report to the BoA, via the STAC Chairman, on activities of the STAC and on any matters falling within the responsibility of the BoA.

15.3 Working Procedures of the Science and Technology Advisory Committee

- 1 The Science and Technology Advisory Committee may be referred to as the STAC.
- 2 The STAC shall meet at least once a year and preferably on the occasion of a EUROCORR meeting. In all cases, the venue and local arrangements for the meeting will be the responsibility of a Member Society. The Member Society will bear any costs associated with the local arrangements for a STAC meeting.
- 3 The Chairman of the STAC will be elected from among its members but taking into account the views of the non-voting members, e.g. the Working Party chairmen. The term of office of the Chairman shall be three years with the option of re-election for one further term. The Chairman will remain one of the nine elected members.
- 4 The STAC will be assisted by a Scientific Secretary (para. 18) to be appointed by the BoA taking into account the wishes of the STAC. (Appointment by the BoA is necessary as the Scientific Secretary is a paid official of the EFC and the BoA is responsible for expenditures associated with the work of the Scientific Secretary (para 14.2)).
- 5 At least three months before a meeting of the STAC the Scientific Secretary will issue the invitation to those entitled to attend, i.e. as described in para. 15.1, with the date and venue as agreed at the previous meeting. Liaison with the host Member Society will be the responsibility of the Scientific Secretary.
- 6 The Scientific Secretary in consultation with the STAC Chairman will prepare a draft Agenda and circulate this to those invited to attend. Working papers will be issued not later than three weeks before the meeting.
- 7 The Scientific Secretary will be responsible for taking the minutes of the meeting and for their subsequent distribution. In addition to circulation to all members of the STAC and all Working Party Chairmen, one copy of the minutes shall be lodged with each of the three Offices of the General Secretariat.

- 8 The Chairman, or appointed deputy, and four elected members constitute a quorum.
- 9 In the case of the resignation of an elected member of the STAC a replacement will be sought from the resigned member's Member Society. If no nomination is offered, the STAC may co-opt a new member, and preferably from the country of the resigned member.

16 WORKING PARTIES

- 16.1 Working Parties are formed with the object of achieving collaboration on any aspect of corrosion or corrosion control in Europe.
- 16.2 A Working Party may be formed on the proposal of the General Assembly, the BoA, the STAC, or industry, but in all cases the Directives for Establishment and Operation of Working Parties, as appended to these Bye-Laws, must be followed.
- 16.3 A proposal for the formation of a Working Party must receive, on enquiry from the proposer or from the EFC Scientific Secretary, the written support of Member Societies of Full Membership status in at least four European countries. This requirement is essential since Member Societies provide the major financial input for the operation of the EFC. It will apply even in cases where the initial proposal for formation of a Working Party comes from industry.
- 16.4 Proposals for the formation of a Working Party should be directed, in the first instance, to the Scientific Secretary who will, after making the appropriate enquiries, bring the proposal to the attention of the STAC.

17 TASK FORCES

- 17.1 Task Forces may be established to carry out specific tasks that are not normally the responsibility of existing Working Parties or that have implications for the work of the EFC generally. (Examples in recent years have been Task Forces concerned with a publication policy and with the organisation of EUROCORR events).

- 17.2 Task Forces may be set up by the BoA, STAC, or Working Parties (to be referred to as the Parent Body). A Chairman will be appointed by the Parent Body, and the members of the Task Force will be selected by that Chairman. Neither the Chairman nor the members of the Task Force are required to be members of the Parent Body.
- 17.3 The Chairman of the Task Force will report to the Parent Body, as required.
- 17.4 A Task Force will be disbanded on completion of its work.

18 THE SCIENTIFIC SECRETARY

18.1 Duties of the Scientific Secretary:

- 1 The development and coordination of the activities of STAC in cooperation with the Member Societies, the BoA, and the General Secretariat.
- 2 The preparation of the Agenda and working papers for the STAC meetings and the preparation and distribution of minutes of STAC meetings.
- 3 The preparation of papers and reports for the dissemination of corrosion information across national boundaries, notably, but not exclusively, through the publication in an EFC series of reports, guidelines, etc. (Detailed editing of manuscripts for publication in the EFC series is the responsibility of the series publisher).
- 4 The reinforcement, where desirable, of scientific and technical links with other bodies having interests similar to those of the EFC.
- 5 Maintaining an awareness of, and collaborating, whenever possible, with National, European, and International Standards bodies.
- 6 Maintaining close contact with EFC Working Parties through their chairmen and liaising with EFC Member Societies to encourage the latter to appoint delegates to Working Parties.
- 7 Preparation and distribution of an EFC Newsletter.

- 8 Presenting a report on the work of the Scientific Secretary to the BoA at its meetings.
- 9 Reporting to the General Assembly on the scientific and technical work of the EFC.
- 10 Maintaining a Calendar of EFC and other important corrosion events.
- 11 Approving and issuing EFC event numbers.

19 EFC EVENTS

A meeting, conference, symposium, educational course or other similar event may be described as a numbered EFC event providing the following requirements are met:

- 1 Applications to have an event accepted as an EFC event must be addressed to the EFC Scientific Secretary;
- 2 The event must be concerned with a topic or topics that fall within the interests of the EFC;
- 3 The event must be organised by a Member Society or Working Party of the EFC: in the latter case, the agreement of the national Member Society or Societies must be obtained (see also para. 3.7);
- 4 Events meeting the above requirements, but organised by other bodies, including industry, may be registered as an EFC event if written agreement is obtained from a Member Society in the country in which the event is to be held. In such cases, the Member Society must be invited to nominate a representative to the organising committee;
- 5 There should be no *unnecessary* restriction on the announcement of the event or on the attendance; there should be no *unnecessary* restriction on the subsequent reporting of the event although any requests from the organiser for speakers' anonymity should be agreed in advance and respected;

- 6 The language of the event must be one of the official languages of the EFC, i.e. English, French or German: all publicity to be provided by the EFC must be in English;
- 7 Details of the event, dates, venue, language, organisers, publication route (if any), availability of abstracts or preprints, etc., should be entered on a form supplied by, and returned on completion to, the EFC Scientific Secretary (Appendix A provides an example of this form);
- 8 Acceptance as an EFC event will ensure inclusion in the EFC Calendar of Events, publicity, and reporting in the EFC Newsletter.

NOTE: EFC event numbers are allocated in the order in which applications are received and are not related to the chronology of the events.

20 EUROCORR

EUROCORR (for which upper case letters should be used) is the title of the annual EFC corrosion conference.

The requirements for the venue, hosting and organisation of EUROCORR are as follows:

- 1 EUROCORR must be held in a European country and organised by the EFC Member Society or Societies in that country. Where there is more than one Member Society in the country, it is desirable that all the Societies should be involved;
- 2 Bids for hosting EUROCORR must be submitted to the Scientific Secretary at least three years before the beginning of the year in which the event is to be held. The BoA makes the final decision on the organiser of EUROCORR after consideration of all of the bids that have been received, and taking into account any views from the STAC;
- 3 A bid to host EUROCORR should indicate the willingness of the organiser to enter into a form of agreement with the EFC (see the draft Agreement appended to these Bye-Laws);

- 4 EUROCORR should commence at a date between September 1st and October 15th and have a duration of 3, 4 or 5 days.
- 5 EFC Member Societies are requested not to hold conferences on any topic related to corrosion and its prevention between these dates; where long standing commitments exist the matter should be discussed by the STAC with a view to reaching an acceptable compromise.
- 6 EUROCORR should not be held in a year when the International Corrosion Congress is taking place in Europe.
- 7 All Working Party Chairmen shall be invited to join the Scientific Committee of EUROCORR.
- 8 The broad outlines of the technical programme should be discussed in the STAC which will make appropriate recommendations to the organiser. A representative of the organising Member Society should be present at the STAC meeting.
- 9 The first announcement from the host society shall be made as soon as the date and venue have been established but preferably not more than two years before the event.
- 10 The second announcement of EUROCORR should not take place until the discussions (8 above) have taken place.
- 11 Publication of the proceedings of EUROCORR is essential. Publication may take place before or after the event. If publication is planned for after the event then extended abstracts must be provided for delegates at the meeting. Publication after the event may be in the form of separate volumes with each relating to a particular session of EUROCORR. The full papers for all sessions must be made generally available in the EFC series, in some other special volume or in a European corrosion journal.

- 12 A levy (the amount to be approved in the EFC budget on an annual basis) to be raised on each paying delegate should be paid to the EFC: a pro rata charge will apply to those delegates registering at a reduced rate or for only part of EUROCORR.

DIRECTIVES FOR THE ESTABLISHMENT AND OPERATION OF WORKING PARTIES (WPs)

1 PRINCIPLES

- 1 WPs are formed with the object of achieving collaboration in Europe to deal with any aspect of corrosion and corrosion control.
- 2 WPs are the principal means of conducting the technical and scientific work of the EFC.
- 3 Member Societies have an automatic right to appoint delegates to WPs.
- 4 WPs should not be started in topic areas where similar activities have already been well established on a European basis by a Member Society.
- 5 A WP should be proposed only where the topic has significance in a European context. Topics associated with a particular country should, in general, be the responsibility of a Member Society in that country. That Member Society may, however, invite the EFC to establish an EFC WP. Alternatively, the topic, if of clearly defined objectives, could be investigated by a Task Force of the EFC (see para. 17 of the Bye-Laws).
- 6 The proposed establishment of a WP should be supported by Member Societies having Full Membership status in at least four different countries. Any objections will be considered by the STAC before recommending establishment of the WP to the General Assembly.

2 **FIELDS OF ACTIVITY OF THE WORKING PARTIES**

WP may be established to work in the following areas, although the list is not exclusive:

- 1 Study and critical assessment of the literature in the field of interest of the WP with a view to updating and publication;
- 2 Preparation of State of the Art reports;
- 3 Preparation of Guidelines documents as a basis for recommendations for good practice and for submission to Standards writing bodies;
- 4 Drawing up recommendations for the education and training of corrosion experts at various levels;
- 5 Preparation of training courses;
- 6 Preparation of symposia on subjects of importance to the WP;
- 7 Conducting field surveys on corrosion topics or laboratory corrosion tests across various European countries;
- 8 Providing technical support to standardisation bodies and to CEN, in particular.

3 **FORMATION OF A WORKING PARTY**

3.1 Proposals for the formation of a WP can be made by:

- 1 The General Assembly;
- 2 The Board of Administrators;
- 3 The Science and Technology Advisory Committee;
- 4 A Member Society;
- 5 An Office of the EFC Secretariat;
- 6 An industrial, academic or consulting body with substantial interests in Europe and with one or more persons involved in the proposal belonging to an EFC Member Society having Full Member Status.

3.2 Procedures for establishing a WP

In summary, the following steps are required to establish an EFC Working Party. These steps should be taken in the order shown, but with the possibility of varying this as described in 3.2.4 below:

- 1 A proposal, including scope and purpose;
- 2 Approval of Member Societies;
- 3 Approval by STAC;
- 4 Inaugural meeting;
- 5 Final approval by the General Assembly.

3.2.1 The Proposal

A proposal for establishing a new EFC Working Party should be submitted to the Scientific Secretary not later than three months before the date of a STAC meeting.

The proposal should contain the following information:

- 1 The status of the proposer, i.e. one of the bodies mentioned in para. 3.1;
- 2 The name, address, telephone, Fax and e-mail details of the contact person;
- 3 The name of the EFC Member Society of which the person mentioned in (2) is a member;
- 4 A short statement, of up to 100 words, of the suggested scope and objectives of the WP;
- 5 An indication of interest already expressed (this could mention Member Societies, industry, other European Institutions, etc.);
- 6 A proposal for the time, venue and convenor for an inaugural meeting of the WP.

3.2.2 Approval of Member Societies

The Scientific Secretary will take the following actions:

- 1 Inform all Member Societies by letter of the proposal with a request for a reply within six weeks indicating approval or objection; the letter should also invite Member Societies to nominate up to two delegates to attend the inaugural meeting of the Working Party;
- 2 Include the proposal, together with any replies from Member Societies, in the working papers for the next STAC meeting at which the STAC will be invited to approve the establishment of the new WP. The convenor of the proposed WP should be invited to attend the STAC meeting and introduce the proposal.

3.2.3 Approval of STAC

The STAC will examine the proposal taking particular care to ensure that the proposed field of activities fits into the technical and scientific scope of the EFC and that cooperation in the fields covered by other EFC WP and Member Societies or by any existing international working group is encouraged.

3.2.4 The inaugural meeting

Following agreement by the STAC, the convenor of the proposed WP will be invited to proceed with the inaugural meeting; invitations to this meeting are at the discretion of the convenor but must include Member Society delegates as nominated in 3.2.2 above.

EXCEPTIONALLY, where the above timetable would incur a delay of several months before the inaugural meeting could be held, and where there is a pressing demand for work to start, the inaugural meeting may be held before the STAC meeting. In this case, it will be necessary for the proposer in conjunction with the EFC Scientific Secretary to make the enquiries set out in 3.2.2 so that Member Societies may have their views made known at the inaugural meeting.

The minutes of the inaugural meeting should then be included in the working papers for the next STAC meeting when the STAC will be invited to recommend the establishment of the WP to the General Assembly, taking into account any contrary views from Member Societies made at the inaugural meeting or to STAC.

At the inaugural meeting:

- 1 A Chairman will be appointed from among those present. The Chairman must be a member of an EFC Member Society having Full Membership status;
- 2 A Secretary may be appointed at the request of the Chairman (if a Secretary is not appointed, it will be the responsibility of the Chairman to carry out the tasks normally to be expected from a Secretary (see 4.2));
- 3 Terms of Reference and Objectives of the WP should be prepared;
- 4 A provisional membership list should be prepared which should indicate the EFC Member Society to which each WP delegate belongs. It is the duty of the Chairman to encourage WP delegates to join an EFC Member Society;
- 5 The Chairman should inform delegates to the WP that membership is free for all who belong to an EFC Member Society; other delegates, not belonging to an EFC Member Society, will be charged an annual fee to defray some of the administrative costs of the WP. The level of this fee is reviewed annually by the General Assembly;
- 6 The Chairman is responsible for ensuring that a written record (minutes) is kept by the Secretary or other appointed person, of proceedings of the inaugural and subsequent meetings of the WP and that these minutes are sent to all members of the WP and to the EFC Scientific Secretary;
- 7 The requirements for a quorum at meetings of the WP should be decided by those present at the inaugural meeting.

3.2.5 Final Approval by the General Assembly

- 1 On receipt of the minutes of the inaugural meeting of the WP, the Scientific Secretary will prepare a summary indicating the names of the officers, the Member Society nominations and all other proposed members for inclusion in the working papers of the next General Assembly which will be asked to approve the establishment of the new WP.

- 2 The Scientific Secretary will keep the STAC Chairman informed of progress in establishing the new WP and the STAC Chairman will, in turn, inform the BoA of progress.
- 3 The WP may begin its work following the inaugural meeting but will be recognised as an official Working Party of the EFC only after its establishment has been approved by the EFC General Assembly.

4 DUTIES OF CHAIRMAN, SECRETARY AND DELEGATES OF WP

4.0 PRINCIPLES

In the distribution of tasks between the Chairman and Secretary, it should be borne in mind that there are WP in which:

the Chairman and/or Secretary have at their disposal a well organised secretariat either in one of the Member Societies or in the office of the company or enterprise to which they belong, and others in which the Chairman or Secretary manages their own Secretariat (see also para 3.2.4).

In both cases, the office of the Scientific Secretary can, as a support service provided from EFC funding, offer facilities for the copying of minutes and other WP documents and for the posting of these to WP members.

A final distribution of tasks between Chairman and Secretary of a WP on the basis of the following suggestions should, therefore, be decided in each WP:

4.1 Duties of the Chairman:

- 1 The Chairman is responsible for ensuring that the stated objectives of the Working Party are achieved in a timely and effective manner;
- 2 The Chairman participates in the meetings of the STAC and provides, on request in advance from the Scientific Secretary, a written progress report on the activities of the WP for inclusion in the working papers (the Chairman may also, from time to

time, be requested by the Scientific Secretary, to provide a summary of activities for inclusion in the EFC Newsletter);

3 The Chairman calls the meetings of the WP on his own initiative or on the request of WP members; in general it should not be necessary for the WP to meet more than twice each year although sub-groups of the WP charged with particular tasks may meet on other occasions;

4 The Chairman proposes and approves with the consent of the WP, the nomination and re-election of WP members;

NOTE: Each period of office for WP members is of three years.
At the end of each such period, re-election for a further period of three years may be allowed at the discretion of the WP chairman.

5 The Chairman prepares and issues an Agenda for meetings and ensures that a suitable venue is available;

6 The Chairman is responsible for ensuring that minutes of WP meetings are taken and that copies are sent to WP members and to the EFC Scientific Secretary.

7 The Chairman is responsible for drawing up the programme for a session at EUROCORR in his work area when requested to do so by the Scientific Committee for the event.

4.2 Duties of the Secretary

1 The Secretary, together with the Chairman, is at the disposal of the WP for the clerical and administrative tasks involved; in such work advantage should be taken of the facilities afforded by the EFC Scientific Secretary (see 4.0 PRINCIPLES, above);

2 The Secretary conducts the correspondence with WP members on behalf of the Chairman, and produces the minutes of each meeting.

4.3 Duties of Members

- 1 Members are expected to attend meetings of the WP on notification from the Chairman or Secretary;
- 2 Members should participate in the technical and scientific activities of the WP by providing reports and, wherever possible, by participating in collaborative experimental work;
- 3 Members are required to give full support, notably by submission of high quality papers, to the annual EUROCORN conference of the EFC.

4.4 Voting at WP meetings

A vote may be taken at a WP meeting on any matter except of a scientific or technical nature.

A simple majority is sufficient to approve a resolution. However, a secret ballot may be taken if requested by any member.

4.5 Replacement of Chairman

In the event of the resignation or dismissal of a WP Chairman (for example at the request of STAC because of inactivity), a new Chairman shall be proposed by the WP members and the decision communicated to the STAC Chairman. If a new Chairman is not proposed by the WP, the matter shall be referred to the STAC Chairman who will:

- 1 appoint a temporary chairman;
- 2 bring the matter to the attention of the STAC for resolution at its next meeting;
- 3 refer the matter to the BoA if (1) and (2) produce no satisfactory result.

4.6 Review and Dissolution of a Working Party

- 1 Every five years, the activities of WP are to be thoroughly reviewed by the STAC. It is the duty of STAC to advise the BoA and the General Assembly of the results of this review, i.e. whether the WP should continue or be dissolved.

- 2 Reasons for the dissolution of a WP will be the following:
 - (i) achievement of the objective of the WP;
 - (ii) no activity on the part of the WP for two successive years.
- 3 The final decision on whether to wind up a WP is taken by the General Assembly on a proposal of the BoA made on the recommendation of the STAC.

AGREEMENT

on Hosting and Organisation of EUROCORR

Appendix 15/34

The European Federation of Corrosion (EFC) and the national Member Society (Societies) of:

_____ (country),
namely:

(hereinafter called HOST)

Address: _____

Phone: _____ Fax: _____

agree to organise the _____ European Conference of Corrosion - EUROCORN - in:

_____ (place or venue) on: _____ (date)

The HOST and EFC shall cooperate to ensure that the Conference provides a high-quality and representative international forum for corrosion experts from academia and industry.

The EFC shall fulfill its obligations deriving from the present agreement through the following office of its General Secretariat:

European Federation of Corrosion
General Secretariat - _____ Office

Address _____

Phone: _____ Fax: _____

The Conference shall be organised by an International Scientific Committee, responsible for the scientific programme, and by an Organising Committee selected on the initiative of the HOST (including a member of the Board of Administrators of the EFC), responsible for the preparation of the event. For the duration of this agreement the Organising Committee shall hold a permanent secretariat through:

Address:

Phone: _____ Fax: _____

The EFC shall grant to the Organising Committee the right to use the name "European Conference of Corrosion", "EUROCORR", or any other designation indicating its ownership of the event, and to issue all documentation for the Conference with such insignia and on behalf of the Federation.

1. Responsibilities of the International Scientific Committee

The International Scientific Committee, composed of at least two nominees and:

shall determine the content, structure and duration of the scientific programme and guarantee the quality of contributions.

This committee shall decide:

- the themes and speakers for keynote addresses and plenary sessions;
- the number and choice of topics and speakers of parallel sessions;
- the selection of poster displays.

2. Responsibilities of the Organising Committee

The Organising Committee shall oversee and control the planning and running of the Conference (in association with the HOST):

- financing (budget, expenditures, search for sponsors, registration fees, etc.);
 - conference facilities (conference halls, meeting rooms, poster display areas, press, communications, etc.);
 - technical installations (video, slide/overhead projection, etc.);
 - accommodation (hotel reservations for participants, special arrangements for students, etc);
 - Conference documentation (announcements, information leaflets, calls for papers, abstracts, conference programmes, press releases, city maps/guides for foreign participants, etc.);
 - the social programme of the Conference (welcome cocktail, Conference dinner, excursions, etc).
3. The HOST, through the Organising Committee, shall assume the financial responsibility and risk of the Conference.
4. Responsibilities of the EFC

The EFC, by granting the use of its name to the event, is responsible for the scientific quality of the Conference and for the efforts deployed to ensure its success, notably by:

- providing substantial contributions to the scientific programme from the EFC Working Parties;
- promoting the Conference which must be enhanced by the supportive action of the EFC (e.g. inviting its Working Parties to hold their annual meetings during the Conference, provision of mailing lists, Newsletter, systematic announcement of the Conference, for example via Internet, etc.) in order to achieve for the event a genuine European and international dimension;
- the editing and publication of the proceedings of the Conference (under conditions agreed with the Organising Committee).

For each Conference, the EFC shall oversee the execution of the responsibilities of the Federation .

The EFC shall receive a levy of 5 % of total fees paid by delegates, this levy being forecast in the budget of the Conference.

EFC shall invite the Chairman of the Organising Committee to attend as ex officio member the meetings of the EFC Board of Administrators and the General Assembly until the meeting immediately following the Conference.

5. Evaluation of the Conference

The chairmen of the International Scientific Committee and of the Organising Committee shall present their reports (see Annex 2) at the meeting of the Board of Administrators immediately following the Conference. The President of the EFC shall subsequently present his report to Member Societies at the next General Assembly meeting. The EFC shall thereafter draw up an evaluation document which will be communicated to the organisers of the next EFC Conference.

6. Duration of this Agreement

This agreement shall take effect upon signature by both partners. It shall end with the acceptance of the reports to be submitted by the chairmen of the International Scientific Committee and the Organising Committee respectively.

7. Changes

The Partners to this agreement, respectively the EFC and the HOST, shall inform each other in writing of any circumstances which may affect or modify the execution of the aforesaid terms and conditions.

Signatures:

Date _____

Date _____

(President of the EFC)

(Chief Executive, Host Society)

(EFC General Secretary)

ANNEX 1**Timetable for the organisation of the European Conference of Corrosion - EUROCORR**

Activity	Months before the Conference (latest)
(a) First announcement - mailing - press release	24-18
(b) First meeting of the Scientific Committee	15
(c) Invitation of keynote speakers and session chairmen	14-12
(d) Mailing of Call for Papers (including session topics and keynote lecturers)	12-10
(e) Abstracts due date	6
(f) Evaluation of submitted papers	6-5
(g) Informing authors (paper accepted/rejected)	4
(h) Printing of final programme	4-3
(i) Distribution of final programme	3
(j) Final manuscripts due date (invited speakers)	2
(k) Printing of Condensed Papers	1

 CONGRESS

ANNEX 2

GUIDELINES FOR THE ORGANISERS OF EUROCORR EVENTS

1. Organisation

- 1.1 As laid down in the EUROCORR Agreement, each event is to be organised by both an Organising Committee and an International Scientific Committee. The Organising Committee, to be nominated in advance by the host country, will include a member of the EFC Board of Administrators. It will have responsibility for the overall arrangements as spelled out in clause 2 of the Agreement. The International Scientific Committee, chaired jointly by the chairmen of the Organising Committee and of STAC, will include the EFC Scientific Secretary and the Chairmen of the EFC Working Parties, as appropriate, and will have responsibility for the technical aspects referred to in clause 1 of the Agreement.
- 1.2 Good organisation is essential. Meetings of organising committees must be well run and effective.
- 1.3 The efforts of the Organising Committee should be supported by help from the EFC in identifying topics of wide industrial interest.
- 1.4 The Organising Committee must invite members of the International Scientific Committee to at least one meeting in the host country to discuss the scope and content of the technical sessions and the split between oral and poster presentations.
- 1.5 Debriefing sessions should take place after each EUROCORR event so that any lessons can be recorded and passed on to the organisers of subsequent conferences.
- 1.6 In order to establish EUROCORR as a major international event and as the main annual event in the corrosion calendar for Europe, the host country may not hold another national corrosion event of similar standing in the same year. It is, however, welcome to integrate a national event into a EUROCORR conference.

2. Programme

- 2.1 There must be several strong sessions on industrial topics which will be attractive on a European scale and will complement the more fundamentally-based sessions offered by some Working Parties. These should have appeal to a much wider audience than just the other speakers and WP members at the conference. The aim must be to attract a majority of people from outside the EFC who attend because of what they can learn that will be relevant to their work.
- 2.2 Efforts should be made to attract speakers from industry, including those from related fields such as civil engineers and mechanical engineers.
- 2.3 Where possible, both the WP Chairmen and the organisers should focus the sessions on ‘hot’ topics having particular relevance to new and developing technologies.
- 2.4 Each WP Chairman should accept full responsibility from the local organising committee for arranging a session that is not wholly dependent on papers submitted in response to the Call for Papers. Selected experts should also be invited to make contributions in order to guarantee the high quality of the programme. Each session should be of an agreed length and attract an agreed number of delegates. The WP Chairmen should take whatever actions are necessary to achieve their agreed targets.

Note: WP Chairmen whose topics are in decline may be released from this obligation with the agreement of the organising committees.

- 2.5 Some sessions should focus on very specific points since these can often be of broad interest. They need not be organised by the WP Chairman if some other member of the WP has more relevant knowledge of the subject.
- 2.6 Where particular topics span the interests of more than one working party, there should be good liaison between all interested WP Chairmen to ensure that a coordinated approach is adopted (as in the case of inhibitors, and cathodic protection, for example). Joint sessions involving two or more WP should be organised, where appropriate.

- 2.7 In addition, the local organisers should provide special topics of broad interest, encompassing disciplines other than just corrosion, and should identify key local speakers for them.
- 2.8 Within the constraints imposed by the number and length of the sessions and the duration of the conference, the organisers should make every effort to minimise overlap between sessions that are likely to be of interest to the same audience, e.g. Cathodic Protection and Marine Corrosion.
- 2.9 The organisers should consult the WP Chairmen before publishing the first Call for Papers by circulating a draft version by e-mail for comment within two weeks. This will ensure that the wishes of the WP Chairmen regarding joint sessions, etc. are taken into account.
- 2.10 The organisers should also consult the WP Chairmen in the same way before publishing the Provisional Programme in order to ensure that the proposed arrangements regarding the content and timing of their sessions meets with their approval.
- 2.11 Provision should be included for meetings of the STAC, BoA and GA to take place in conjunction with EUROCORR, together with meetings of as many working parties as wish to meet during the event. The arrangements for these meetings should be publicised in advance of the conference, preferably in the Provisional Programme.

3. Venue

- 3.1 In order to provide an attractive product, the venue should be an appropriate one which can be accessed easily and at reasonable cost from the rest of Europe and where the member societies have a record for their professionalism and efficiency. This has to be confirmed by the STAC when recommending future congress organisers.
- 3.2 Low-cost accommodation should be available for those who need it.

4. Finance

- 4.1 The fees should not be so high that significant numbers of potential delegates are deterred from attending.
- 4.2 Reduced fees which encourage delegates to attend only a limited part of the conference should not be offered as a rule.
- 4.3 The local organisers must provide the EUROCORR levy to the EFC. This is currently 15 Euros per full fee paying delegate, subject to a minimum sum of 4,500 Euros, irrespective of the actual number of registrants. It is subject to periodic review by the EFC Board of Administrators and, from 2003 is scheduled to change to 5% of the total registration fees. Provision should be made for this levy when setting the fees for the conference.

5. Exhibition

- 5.1 DECHEMA will maintain contact with regular exhibitors and will develop a network of corporate sponsors who will exhibit at favourable rates at successive conferences.
- 5.2 The local organising committee should delegate responsibility for the organisation of the Exhibition to an individual who should liaise with DECHEMA.
- 5.3 It should be remembered that exhibitions are usually easier to arrange if they focus on a particular topic (e.g. coatings).

6. Publicity

- 6.1 The WP Chairmen will be responsible for publicising their sessions amongst their clientele. Each WP Chairman must encourage participation by delegates from industry and from non-EFC countries by distributing information about forthcoming conferences to their colleagues in industry and in other countries.

- 6.2 A mailing list should be built up of attendees at previous EUROCORR events and this should be passed on to the organisers of subsequent events.
- 6.3 The organiser of EUROCORR must publicise the event on the www.EUROCRR.org website which is available for this purpose from DECHEMA. Links to this website should be included on the www.EFCWEB.org website at DECHEMA, which is available for general EFC publicity purposes, and on the websites of both the Host Society/Societies and the other EFC Member Societies.
- 6.4 The host country should aim to provide at least one-third of the total number of registrants.

7. Other Points

- 7.1 Under the reciprocal agreement with NACE, the President of NACE will be invited to attend EUROCORR as a guest of the EFC. Both his registration fee and his attendance at the conference dinner will be borne from EFC funds.
- 7.2 Also under the reciprocal agreement with NACE, the organisers of EUROCORR will provide NACE with one complimentary place in the EUROCORR Exhibition.
- 7.3 The organisers will provide complimentary registrations for EUROCORR and the conference dinner to the EFC President and Vice-President, to the EFC Scientific Secretary and Honorary Treasurer, and to the members of the organising committees for EUROCORR. Any other complimentary registrations will be at the discretion of the organisers.

EUROCORR REPORT FORM 1 (TO BE COMPLETED BEFORE THE EVENT)**DATES OF EVENT**..... **VENUE**.....**OVERALL THEME OF THE CONFERENCE:**

.....

ANTICIPATED NUMBERS OF DELEGATES:

CATEGORY	REGISTRATION FEES (ex. VAT)	TARGET NUMBERS
Committee Members, etc.		
Invited Speakers		
Member Authors		
Non-Member Authors		
Members		
Non-Members		
Students		_____
		Total: _____

ITEMS INCLUDED IN THE FEES:

.....

.....

.....

.....

.....

NUMBERS OF PAPERS:

ORAL PRESENTATIONS:

POSTERS:

TOTAL: _____**TOTAL NUMBER OF TOPICS****NUMBER OF PARALLEL SESSIONS**

EURO CORR REPORT FORM 2 (TO BE COMPLETED AFTER THE EVENT)

DATES OF EVENT..... **VENUE**.....

OVERALL THEME OF THE CONFERENCE:

.....

ACTUAL NUMBERS OF DELEGATES RELATIVE TO TARGETS:

CATEGORY	TARGET NUMBERS	ACTUAL NUMBERS
Committee Members, etc.		
Invited Speakers		
Member Authors		
Non-Member Authors		
Members		
Non-Members		
Students	_____	_____
Total:	_____	Total: _____

EURO CORR LEVY (Subject to a minimum of 4500 Euros):

5 % of total fees paid by delegates =

PERCEIVED REASONS FOR DISCREPANCIES BETWEEN THE ANTICIPATED AND ACTUAL NUMBERS OF DELEGATES:

.....

LESSONS FOR FUTURE ORGANISERS OF EUROCORR:

.....

From: Roland MITTERMAYR [roland.mittermayr@ofi.co.at]

Sent: 18 February 2005 11:37

To: Paul McIntyre

Subject: Membership in the EFC; your letter from 11 February 2005(OFI Virens scannerOK!)

Dear Dr. McIntyre I

I would like to thank you for the information on membership in the EFC you provided us in your letter from 11 February 2005. Based on the information you submitted we think the Austrian Research Institute for Chemistry and Technology would be eligible for membership in the EFC, as it is established as a non profit organization.

With the information you sent us we can continue to discuss the possibility of a membership in the EFC with our head of institute. After this discussion has come to a positive end, we will contact you again and will hopefully apply formally. As a realistic time frame for joining we see the second half of 2005. Yours sincerely,

Roland Mittermayr

ofi - Group Corrosion and Corrosion Protection

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