



7th International Conference on Film Forming Substances

Prato, Italy



WHEN

26th - 28th MARCH 2024

WHERE

Monash University - Prato Centre
via Pugliesi 26, Prato Italy

WHY

The conference will be of major interest to: operational personnel, technical managers, plant engineers, boiler operators, cycle and plant chemists, researchers and corrosion scientists, and service providers as well as manufacturers of major plant components and chemicals.

The major themes of this international conference will be dedicated to advancing the knowledge and introducing the latest science about film forming substances (FFS). Scientific papers and case studies will provide excellent insights into the latest developments in this field of cycle chemistry as well as numerous examples of the application of film forming substances (amine and non-amine based) in fossil, combined cycle, biomass, nuclear, industrial, geothermal, and other plants.

The conference language will be English.

MEDIA SPONSOR:



PROGRAM

Day 1 – Tuesday, 26th March 2024 ... times are CEST European-based time zone

- 8:30 Registration Open
- 9:00 - 9:15 **Welcome and Introductory Remarks.**
B. Dooley, Structural Integrity, UK
- 9:15 - 9:45 **Two Cases of FFA use in Engie Power Plants.**
A. Senecat, ENGIE Laborelec, Belgium and N. Poelemans, ENGIE Electrabel, Belgium.
- 9:45 - 10:15 **Environmental and Ecotoxicity Waste Water Considerations for FFS Applications in Plants.**
J. Weir and D. Addison, Thermal Chemistry, New Zealand.
- 10:15 - 10:45 Morning coffee/tea within Exhibits.
- 10:45 - 11:15 **Electrochemical Impedance Spectroscopy for Continuous in situ Analysis of FFAs on Carbon Steel Surfaces.**
D. Jero, N. Caussé and N. Pébère, Université de Toulouse, France; F. Chaussec and A. Buvignier, ODYSSEE Environnement, France; N. Pébère, Université de Toulouse, France; M. Roy, CEA, France; and T. Buffeteau, Université de Bordeaux, France.
- 11:15 - 11:45 **Transition of Two Waste Incineration Boilers in Italy from Traditional Treatment to Cetamine - Technical Improvements and Economical Savings.**
A. de Bache, Kurita Europe, Germany; M. Pallares, Kurita Europe Spain; and F. Carrubba and F. Neri, Kurita Europe, Italy; and A. Labonia and V. Di Massa, Ecologia Oggi, Italy
- 11:45 - 12:15 Questions and General Open Floor Discussion
Sponsor Presentation: D. Little, Ecolab
- 12:15 - 13:45 Working Lunch within Exhibits.
- 13:45 - 14:15 **Study of Film-forming Amines in the Conditions of Secondary Circuit: Interaction between Magnetite Surface and Octadecylamine.**
J-E. Lee, A. Astorg, A. Vansteene and J. Tireau, EDF R&D Les Renardières, France; S. Marcelin, B. Ter-Ovanesian and B. Normand, Université de Lyon, France; and G. Lefevre, PSL Research University, France.
- 14:15 - 14:45 **Large Coal Plant's Experience Using Veolia's Polyamine Plus.**
B. Booth and J. Peters, Veolia, USA and G. Hoffman, PacifiCorp, USA
- 14:45 - 15:15 Questions and General Open Floor Discussion
- 15:15 - 15:45 Afternoon coffee/tea within Exhibits.
- 15:45 - 16:15 **Studying Film-Forming Amine Behavior under Water-Steam Cycle Conditions using a Recirculating Loop.**
J. Ulaganathan, Canadian Nuclear Laboratories, Canada; and U. Ramminger and J. Fandrich, Framatome, Germany.
- 16:15 - 16:45 Questions and General Open Floor Discussion
- 17:00- 19:00 **Network Function – Welcome Drinks on the Terrace – Monash University, Prato**
Networking Welcome function sponsored by Swan Analytische Instrumente AG

PROGRAM

Day 2 – Wednesday, 27th March 2024 ... times are CEST European-based time zone

- 8:30 - 8:45 **Review of Day One. Exhibits and Discussion**
- 8:45 - 9:15 **Survey of Available FFA Analytical Methods.**
R. Wagner, Reicon, Germany.
- 9:15 - 9:45 **Application of Film-forming Product to Prevent Corrosion in Two Cooling Systems.**
P. Hankinson, Evides Industriewater, The Netherlands.
- 9:45 - 10:15 **Pre-Commissioning Cleaning of New Industrial Boilers with the Use of ODA.**
D. Harrison, Visentia Ltd., New Zealand.
- 10:15 - 10:45 Morning coffee/tea within Exhibits.
- 10:45 - 11:15 **Filming Product Application for Use in PWRs/PHWRs: EPRI Nuclear Program Update and Elastomer Testing.**
I. Duncanson, K. Fruzzetti and J. Jarvis, EPRI, USA.
- 11:15 - 12:00 Questions and General Open Floor Discussion
Sponsor Presentation: : L. Staub, SWAN Analytical
- 12:00 - 13:30 Working Lunch within Exhibits.
- 13:30 - 14:00 **Experience and Trial Results using POWERFILM 10000, a non-amine FFS at a Supercritical Power Plant.**
D. Little and J. Brown, Nalco Water, USA.
- 14:00 - 14:30 **Study of the Impact of FFA on Steam Generator Sludges Properties.**
A. Vansteene, A. Astorg and J. Tireau, EDF R&D Les Renardières, France; C. Wesoluch, D. Mitsch and A. Duchatelet, EDF Industrial Division, France.
- 14:30 - 15:00 **Trial of FFP at Liddell Power Station.**
M. Harris et al, AGL, Australia.
- 15:00 - 15:30 Afternoon coffee/tea within Exhibits.
- 15:30 - 16:00 **Flow-Accelerated Corrosion Observed in Aqua Ammonia Systems.**
R. van Lier, Yara, The Netherlands; G. Paci, Yara, Italy; R. Babwah, Yara, Trinidad;
H. Leth-Olsen, Yara, Norway; and P. de Moel, Delft University of Technology, The Netherlands.
- 16:00 - 17:00 Questions and General Open Floor Discussion
- 17:00 **Day 2 Concludes**



PROGRAM

Day 3 – Thursday, 28th March 2024 ... times are CEST European-based time zone

- 8:30 - 8:45 **Review of Day Two, General Open Floor Discussion and Questions**
- 8:45 - 9:15 **Application of ODA for Electrode Boilers.**
D. Addison, Thermal Chemistry, New Zealand.
- 9:15 - 9:45 **Dosage, Monitoring and Control of FFA and FFAP – A Practical Approach.**
W. Hater, Germany.
- 9:45 - 10:15 **Upgrading a Site Treated by FFS.**
X. Labeille, F. Bertrand and F. Chaussec. ODYSSEE Environnement, France.
- 10:15 - 10:30 Questions and General Open Floor Discussion
- 10:30 - 11:00 Morning coffee/tea within Exhibits.
- 11:00 - 11:30 **FFS as a Heat Transfer Efficiency Improver for Steam Facilities.**
S. Mori, Kurita Water Industries, Japan.
- 11:30 - 12:00 **Comparison of Photometric Methods for Detecting Film Forming Amines in Water and Progress in Study of their Interaction with Surface Oxides.**
S. Vidojkovic, University of Belgrade, Serbia; R. Lindeboom, TU Delft, The Netherlands; and M. Mijajlovic, University of Nis, Serbia.
- 12:00 - 12:20 Questions and General Open Floor Discussion
- 12:20 - 13:45 Working Lunch within Exhibits.
- 13:45 - 14:45 **Panel Discussion – FFS Research Needs**
Chair: B. Dooley, Structural Integrity, UK.
- 14:45 - 15:15 **Adsorption Behavior of OLDA and Effect of Adsorbed OLDA on Contact Angle.**
H. Mitsui, Y. Nakatsuchi, K. Tatsuhara, S. Miyake and S. Tabata, Mitsubishi Heavy Industries, Ltd. Japan.
- 15:15 - 15:45 **Heat Transfer Surface Filming Impact on Heat Transfer Rate in Evaporators.**
J. Gilberd, Wilmar Sugar, Australia; D. Rodman, NALCO Water, Australia; and L. Shephard and R. Situ, James Cook University of Australia, Australia.
- 15:45 Questions and Final Discussion
- 16:00 **Day 3 Concludes**



7TH INTERNATIONAL FILM FORMING SUBSTANCES CONFERENCE 2024 SPONSORS AND EXHIBITORS



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The logo for Kurita features a blue circular icon with two overlapping circles inside, followed by the word 'KURITA' in a bold, blue, uppercase sans-serif font.

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ANALYTICAL INSTRUMENTS

INTERNATIONAL STEERING COMMITTEE

- **Barry Dooley (CoChair)**, Structural Integrity, UK
- **David Addison (CoChair)**, Thermal Chemistry, New Zealand
- Jörg Fandrich, Framatome, Germany
- Iain Duncanson, EPRI, USA
- Matt Harris, AGL, Australia
- Marion Roy, CEA, France
- Roy van Lier, Yara, Belgium
- Christophe Wesoluch, EDF, France