



The Australian
Power Institute

PowerChem Asia Pacific 2018

Conference, Exhibition, Training

Novotel Twin Waters, Sunshine Coast, QLD
Sunday 20 May - Thursday 24 May 2018
Theme: Innovative Chemistry in Energy

Aim of PowerChem Conference:

- Provide a platform for Power Station Chemists with a broad understanding of industry drivers and key issues
- Provide power station chemists with best practice techniques from Australia and overseas
- Bring industry personnel with diverse experience together to share learnings and experiences to further develop personal networks for future business developments and careers

Delegate Benefits:

- Gain an understanding of Power Station Chemistry drivers and key issues
- Opportunity to learn of latest products and solutions from leading suppliers through exhibitor participation
- Update on best practice applications
- Established network of Power Station Chemistry contacts
- Copy of presentations after conference
- New practical skills and knowledge ready to be applied in the workplace

Keynote Speakers - International



Dr. Robert Svoboda - Svoboda Consulting (Switzerland)

Robert is a consultant on water chemistry, corrosion and radiation technology. He joined Brown Boveri (later merged into ABB, Alstom) in 1969, working on R&D, planning & commissioning of nuclear and fossil fired power plants. From 1976-1991 he was head of the "Chemical Technology" section in the Materials Laboratory in Baden, Switzerland, and held the same position 1992 in Mannheim, Germany. Before Brown Boveri, Robert worked at the Austrian Nuclear Center in Seibersdorf and the French Nuclear Center in Saclay. Robert holds a PhD in Physics from the University of Vienna, as well as a DEA from the University of Paris in Nuclear Metallurgy. He has made more than 125 technical publications on his fields of work. He is honorary fellow of the International Association for the Properties of Water and Steam.



Michael Rziha - Principal Key Expert Chemistry - Siemens (Germany)

Michael is Department Manager of the Plant Cleaning and Chemistry of Siemens Energy Solutions, Germany. He is leading the Group for Plant Cleaning Concepts and the Chemical Commissioning Engineers, who are responsible for the entire Chemistry of a Power Plant during Erection and Commissioning. Michael has worked for Siemens since 1985 as Chemical Commissioning Engineer and was involved in several Projects (nuclear and fossil) in Germany and Overseas during their Commissioning Period until 1995. From 1995, he worked in the Design Department of Siemens Power Generation for Water Treatment Plants and Power Plant Chemistry. Since 1998 he has been the head of Plant Cleaning and Chemistry.

EXHIBITION & SPONSORSHIP OPPORTUNITIES STILL AVAILABLE

Partnering with PChem provides an excellent opportunity to increase awareness of your organisation, demonstrate your involvement within the industry, promote your products and services, support your brand, and to maintain a high profile within the field; before, during and after the event. To review the latest Sponsorship & Exhibitor Prospectus visit <https://www.regonline.com/builder/site/Default.aspx?EventID=2039214>.

Technical Organising Committee:

- David Addison (Chair) - Thermal Chemistry (david.addison@thermalchemistry.com)
- Bruce Leitch - Ampecontrol
- Brett Connor - Stanwell Corp.
- Barry Dooley - Structural Integrity Associates Inc.
- Kirk McNaughton - Stanwell Corp.
- David Plozza - Atlinta
- Geoff Grellman - Energy Australia
- Christian Knott - Osborne Cogen

Conference Organiser:

Kendall Klingaman (kendall.klingaman@api.edu.au)



Kindly Supported by:



Local Attractions

Keen to organise a social activity with a few of your fellow delegates? Novotel Twin Waters is nearby the famous Eumindi Markets, TW Golf Club, AUS Zoo and Mudjimba Beach! See list of local attractions on the conference website. (These activities are optional and any costs involved will be at own expense)

Sunday 20th May

Time: 6:00 pm - 8.30 pm

Location: The Beach

Dress code: Hawaiian Theme

Cost: Inclusive for conference delegates.

*Additional guests: \$70.00



Welcome Reception

Relax and get to know one another at the Beach BBQ Welcome Reception hosted by Purolite on Sunday 20th May.

Held outside (weather permitting) on the lovely lagoon beach, giving you a chance to take in the relaxing lagoon views. Come along in your loudest Hawaiian shirt and catch up with friends and colleagues.

Starting at 6.00pm, food will be served through to 8.00pm.

The team at Purolite are looking forward to seeing you there. Prize given to the delegate with the loudest Hawaiian shirt!

Day One: Monday 21st

8:00 Registration

SESSION 1 - Chair: David Addison

9:00 Welcome

Mike Griffin, Chief Executive Officer
The Australian Power Institute

9:05 Opening Remarks

David Addison (Conference Technical Chair)
Thermal Chemistry

9:15 Keynote: History of Australian Power Plant Chemistry "Lessons from the Past"

David Swainsbury

9:50 Keynote: Siemens/IAPWS - Technical Guidance Documents - Actual Status & Outlook for Future TGD's

Michael Rziha
Siemens

10:15 Morning Tea

SESSION 2 - Chair: Michael Rziha

10:45 The Future of Chemistry for AGL in a Changing Electricity Market

Hayden Henderson
AGL

11:15 Keynote: Steam Chemistry and Requirements for Turbine Operation

Bobby Svoboda, Steam Turbine Chemistry
Svoboda Consulting

11:45 Keynote: Ongoing Cycle Chemistry Issues Encountered in both Existing & New Power Plants (Fossil, Industrial & Geothermal)

David Addison
Thermal Chemistry

12:05 Questions

12:15 Lunch - Exhibition area

Sponsored by:



SESSION 3 - Chair: Hayden Henderson

1:15 Keynote: Cycle Chemistry Issues due to Incorrect Application of a Film Forming Product

David Addison
Thermal Chemistry

1:45 Use of Filming Chemistry to Minimise Corrosion Product Transport in Utility Boilers

David Rodman
Nalco

2:10 Online Removal of Iron from a HRSG

Justin West
Suez

2:35 Keynote: Siemens/IAPWS - Critical Aspects & Questions with Respect to Application of FFA/FFAP

Michael Rziha
Siemens

3:00 Questions

3:10 Afternoon Tea - Exhibition area

SESSION 4 - Chair: Brett Connor

3:40 Starting the Process Safety Journey at AGL Macquarie

Peter George
AGL

4:05 Calculating Condenser Performance: Managing CW Chemistry for Increased Generation

Duncan McAllister
Loy Yang B Power Station

4:30 Automation of Condensate Polishing Operation Based on Cycle Chemistry Conditions

Franz Stoffel
Energy Australia

4:55 Cycle Chemistry Improvements at AGL

Luke Halket
Loy Yang A Power Station

5:20 Questions

Gold Sponsors:



Monday 21st: Conference Dinner

The API PowerChem Conference Dinner will be held at The Boat Shed (Cotton Tree)
Time: 7:00 pm - 9:30 pm. Dress code: Smart Casual. Bus departs 6:30pm.
Cost: Inclusive for conference delegates, additional guests: \$100.00

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Day Two: Tuesday 22nd

SESSION 5 - Chair: Franz Stoffel

9:00 Keynote: Chemistry & Materials in Water-Cooled Generator Stators

Bobby Svoboda
Svoboda Consulting

9:45 Keynote: Some Fundamental Chemistry & Material Aspects of Flow-Accelerated Corrosion

Derek Lister
University of New Brunswick

10:15 Morning Tea - Exhibition area

SESSION 6 - Chair: Bobby Svoboda

10:45 History of Turbine Deposition - Kogan Creek Powerstation Case Study

Katherine Rose
CS Energy

11:10 Sodium Issue at NewGen Power Station

Luke Mosele
NewGen

11:35 A Chronicle of Swanbank E's Return to Service Following 3 Years of Cold Storage

Brett Connor
Stanwell Corporation

12:00 Putting Demin Plant Issues to Bed... Deep Bed, that is

Justine Fergusson
AGL Torrens

12:25 Questions

12:30 Lunch - Exhibition area
Sponsored by:



SESSION 7 - Chair: Geoff Grellman

1:30 IAPWS/AUSAPWS Discussion Panel

Gary Joy
Hayden Henderson
David Addison

2:30 Operational Issue with Demineralised Water Plant Related to Chloramine Dosing of Reclaimed Water Supply

Mariah Browne
Delta Power Company

2:55 The Challenges of Constantly Changing Supply Water

Kathy Miller
Synergy

3:20 Questions

3:25 Afternoon Tea - Exhibition Area

SESSION 8 - Chair: Kirk McNaughton

3:55 EDI for CACE Measurement in Power Plants using EDI Technology to Minimise Resin Usefield Results & Conclusions

Lukas Staub
Swan

4:20 Perfecting the Imperfections of Conductivity Measurements

Kirk Buecher
Mettler Toledo Thornton

4:45 Questions

5:15 Close of Day Two

Silver Sponsor:



Purolite®

Tuesday 22: Private Cocktail Function Appreciation for Conference Support

In honor of the appreciated support for the conference, API will host a special opportunity to network with a celebratory cocktail hour for all sponsors, exhibitors and conference organisers. Please note, this event is invite only.

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Day 3 Wednesday 23rd

SESSION 9 - Chair: Dave Swainsbury

- 9:00** **What You Can & Cannot Do with RO - Kogan Creek Power Station Reverse Osmosis Trial**
Luke Smith
CS Energy
- 9:25** **Minimal Liquid Discharge for Power Stations**
John Flynn on behalf of Scott Chalmers
Osmoflo
- 9:50** **Integrated Corrosion Products Sampling & Case Study**
John Powalisz
Sentry
- 10:15** **Hydrogen Peroxide as a Geothermal Cooling Water Biocide**
Tom Clark
Mercury Energy

10:40 **Morning Tea - Exhibition area**

SESSION 10 - Chair: David Rodman

- 11:10** **Common Legionella Related Cooling Water Issues Still Occuring in Industry**
Judy Weir
Thermal Chemistry
- 11:35** **Managing Legionella Risk with Oxidant Biocides in Industrial Cooling Towers**
Thomas Fillary
Visentia
- 12:00** **Chlorine Dioxide Measurement in Cooling Water Systems**
Frank Gall
Nalco

12:25 **Questions**

12:30 **Lunch - Exhibition area**

SESSION 11 - Chair: Judy Weir

- 1:30** **Advantages of Combined Reverse Osmosis and Ion Exchange Processes**
Derrick Lau
Lanxess
- 1:55** **Commisioning Guidelines of Mixed Bed & Condensate Polishing Resins to Avoid Clumping - Resolution of Clumping When Encountered**
James Rosie
Purolite
- 2:20** **Ion Exchange Resin Analysis: Condition Assessment for Peak Performance & Optimisation Potential in Demineralising & Polisher Units at Thermal Power Plants**
Kezia
Membrane Futures

2:45 **Questions**

3:00 **Afternoon Tea - Exhibition area**

SESSION 12 - Chair: Gary Joy

- 3:30** **Corrosion & Deposition Mitigation in Industrial Boiler Water Treatment**
Clive Roscoe
Solenis
- 3:55** **Application of Robust IAPWS based Feedwater, Boiler & Steam Chemical Treatments in Industrial & Cogeneration Plants to Minimise Deposition & Corrosion to Improve Reliability**
David Addison
Thermal Chemistry
- 4:30** **Russell Robinson Best Paper Award Presentation**
Presented by Judy Weir & David Addison
- 4:50** **Questions**
- 5:00** **Final Comments/Close of Conference**

Bronze Sponsor:

NALCO Water
An Ecolab Company

CONFERENCE TRADE EXHIBITION

The conference program and exhibition space has been designed to offer conference delegates and exhibitors maximum networking opportunity. Morning tea, afternoon tea and lunch on Monday, Tuesday and Wednesday will be served in the exhibition display area.

Make sure to take advantage of this powerful consortium of professionals!

Training Courses: Thursday 24th (Each course runs from 9:00am - 4:00pm)

Training is provided in small groups to ensure maximum delegate participation and value. Please note, courses are only run if minimum numbers are met.

Cost per course: API Members \$550. Non-members \$770.

T1 **Advanced Training on IX+RO Technologies** - Rajeev Bhavaraju & Steve Brown

1/RO and IX in make up water treatment – balancing the act. - The aim is to give a method to optimise the RO selection and IX selection to achieve production targets economically, for both modern trains and also for trains where a RO has been retrofitted.

Topics covered:

- Backgrounder on RO technology
- Balancing of a RO with IX
- Use of the LewaPlus Projection Software

2/Ammonia cycle condensate polishing – getting more! Ammonia cycle operations offer the opportunity to extend polishing condensate times and reduce costs.

Topics Covered:

- Backgrounder on the Basic Theory,
- Act of going to Ammonia Cycle
- Prerequisites
- ideal conditions
- Common Issues and Solutions

*Attendance at the training will unlock further technical assistance for attendees, including a site visit and a report.

T2 **Course on Operational aspects in Cooling Water Systems** – Maarten Bruijs & Ludwin Daal

The topics of our training concern the following:

- Fouling in cooling water systems
- Macrofouling
- Microfouling
- Monitoring fouling
- Scaling + Corrosion
- Exotics/Monitoring (bio)fouling
- Fouling control: biocides/chlorination/byproducts
- Cases: worldwide experiences with fouling events and trouble shooting and optimization options

Please contact Kendall Klingaman if previously registered for this course. Previous registrants are able to enroll in alternate training session (1 or 3) or request refund.

CANCELLED

Unfortunately the facilitator has fallen ill and is no longer able to make it.

T3 **Water steam cycle instrumentation: Operation and Maintenance** - Lukas Staub

Course Topics Conductivity (Specific, CACE and degassed CACE), pH / ORP, Dissolved Oxygen, Sodium and Silica.

The concept is for all parameters the same: Measuring points, Current guidelines and recommendations, Measuring principles commonly applied and Maintenance/Quality assurance.

The training is manufacturer independent. There will be no Instrument examples shown. The goal is to familiarize participants with the Recommendations (IAPWS, VGB, EPRI) where to measure a certain parameter and what measuring principles are available. Further then to look into what maintenance and QA procedures are required for certain measuring principles to guarantee seamless reliable operation of the equipment with recommendation on preventive maintenance and calibration schedules.

Register now! <https://australianpowerinstitute.currinda.com/register/event/1>

Sponsorship package still available! [Visit the conference website for details](#)

