

BRITISH AND IRISH ASSOCIATION FOR THE PROPERTIES OF WATER AND STEAM

**A Member of the International Association for
the Properties of Water and Steam**

BIAPWS

www.biapws.org

BIAPWS Annual Report April 2010

1. Introduction

The British and Irish Association for the Properties of Water and Steam (BIAPWS) is the UK and Ireland national committee of the International Association for the Properties of Water and Steam (IAPWS) and the representative body for Power Plant Chemistry in the UK and Ireland. BIAPWS is a not for profit organisation. This is the annual report of the activities of BIAPWS for the year to April 2010.

2009/10 has been another successful year for BIAPWS. Membership has remained strong, BIAPWS events have been well supported and the BIAPWS symposium and BIAPWS Award have both been successful.

If you would like to know more about BIAPWS, feel free to contact one of the BIAPWS Officers listed below, visit our web site www.biapws.org or e-mail contact.us@biapws.co.uk.

2. BIAPWS Membership

BIAPWS membership has remained strong and BIAPWS is currently supported by seventeen industrial sponsors, five ordinary members and seven corresponding members. In 2009 BIAPWS was pleased to welcome Serco, ESR Technology and Swan Analytical as new industrial sponsors. BIAPWS committee meetings are held three times a year, and attendance at these has been very good in 2009/10 typically around twenty. BIAPWS committee meetings are preceded by a couple of technical presentations, which always generate a high level of interest. Industrial member's representatives are able to bring a colleague to the meeting to benefit from and contribute to the discussions.

BIAPWS has a strong membership representation in the area of power plant chemistry. However, other areas that are of relevance to IAPWS, for example the thermophysical properties of water and steam and the physical chemistry of aqueous solutions, are less well represented and BIAPWS is particularly keen to expand its individual membership in these areas.

3. IAPWS Activities

BIAPWS has continued to support IAPWS through its formal membership and participation in IAPWS activities. A number of BIAPWS committee members are represented on IAPWS working groups, in particular Power Cycle Chemistry (PCC). BIAPWS members of the PCC working group are also supporting the production of a new suite of IAPWS Technical Guidance Documents that are expected to provide a valuable resource to those involved power cycle chemistry.

IAPWS holds annual meetings and BIAPWS members support these events by participating in the relevant IAPWS working groups. In addition, BIAPWS is represented on the executive committee of IAPWS. Every four or five years IAPWS holds the International Conference on the Properties of Water and Steam (ICPWS) in place of the annual meeting. The next such conference will be the 16th and this will be hosted by BIAPWS and held in the UK. It has been over fifty years since this conference has been held in the UK and BIAPWS is looking forward to a welcome return to where the very first such conference was held in 1929. A BIAPWS sub-group has been formed to take the organisation of this conference forward.

For further information on the activities of IAPWS, visit the IAPWS web site, www.iapws.org.

BIAPWS is sponsored by: ABB Ltd; Alstom Power Ltd; Amec plc; British Energy Generation Ltd.; Centrica Energy; EDF Energy; E.ON UK plc; ESB (Ireland); ESB International (Ireland); ESR Technology; Hach Lange Ltd; Rolls-Royce plc; RWE-npower plc; Scottish Power plc; Serco Group plc; Swan Analytical (UK) Ltd; Teesside Power Ltd; Thames Power Services Ltd.

Chair: Dr A Rudge, British Energy Generation, Barnett Way, Barnwood, Gloucester, GL4 3RS, UK.
Secretary: Dr R R Harries, 6, Montague Drive, Loughborough, Leics. LE11 3SB, UK.
Treasurer: Mr E G Huff, Plush Hill, All Stretton, Shropshire, SY6 6JP, UK

4. BIAPWS Award

The BIAPWS Award is given annually by BIAPWS to qualifying students as a means of promoting awareness of the topics of interest to BIAPWS and their industrial application. In 2009 the BIAPWS award was co-sponsored by Centrica plc. The award recipient was Peter Clark, who is studying for a Masters Degree in Chemical Engineering at the University of Birmingham. The Award is given in the form of contributory funding by BIAPWS for a work experience placement for the student. Peter spent three months working on a project to assess chemical monitoring instrumentation at Centrica's South Humber Bank power station. Peter gave an excellent presentation on his work at the BIAPWS committee meeting in January 2010.

Past BIAPWS Award winners have since gone on to full time employment in the power plant industry, demonstrating a significant success for the Award in attracting high calibre individuals into the power generation industry.

BIAPWS also sponsors and judges prizes for energy related projects at a schools science fair in Hinckley, Leicestershire.

5. BIAPWS Symposium

The 11th BIAPWS Symposium, 'Progress in Environmental and Cycle Chemistry', took place at the Village Hotel, Nottingham, on 22 April 2009. This was preceded by a half day workshop on 21 April. Two sessions were held in the Symposium: 'Environmental Issues in Power Plants' and 'Flexibility in Cycle Chemistry', whilst two sessions were also held in the workshop, both on chemical aspects of flexible operation. This proved to be another successful meeting, with around seventy delegates attending the Symposium and thirty delegates attending the workshop. A summary report of the event was published in the journal Power Plant Chemistry.

The 12th BIAPWS Symposium and Workshop will take place on 20 and 21 April 2010 at the Village Hotel, Nottingham.

6. BSI Representation

In recent years BIAPWS has participated in formal Standards Committees of relevance to its members. As a result BIAPWS is currently represented on three British Standards Committees:

- PVE/2: Water Tube and Shell Boilers. This committee is of relevance to BIAPWS because it is the UK standards committee with responsibility for BS EN 12952-12:2003: Water-tube boilers and auxiliary installations - requirements for boiler feedwater and boiler water quality, and BS EN 12953-10:2003 Shell boilers - Requirements for feedwater and boiler water quality. BIAPWS is leading on behalf of other European power plant chemistry specialists for these standards to be revised and improved.
- CII/62: Treatment of water for boilers. This committee is of relevance to BIAPWS because it is the UK standards committee with responsibility for BS 2486:1997 Recommendations for treatment of water for steam boilers and water heaters.
- EH/3/6: Water quality - sampling. This committee is of relevance to BIAPWS because it is the UK standards committee with responsibility for BS 6068-6.7:1994 (ISO 5667-7:1993) Guidance on sampling of water and steam in boiler plants. BIAPWS is expecting to take a lead in revising this document in the forthcoming years.

Dr. Andy Rudge
Chair, British & Irish Association for the Properties of Water and Steam
April 2010