

**THE INTERNATIONAL ASSOCIATION
FOR THE PROPERTIES OF
WATER AND STEAM**

MEMBERS

Argentina and Brazil
Britain and Ireland
Canada
Czech Republic
Denmark
France
Germany
Greece
Italy
Japan
Russia
United States of America

ASSOCIATE MEMBER

Switzerland

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**Minutes of the Meetings
of the
Executive Committee
of the
International Association for the Properties of
Water and Steam**

**Berlin, Germany
7-12 September 2008**

Prepared by: Barry Dooley



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Minutes of the Meetings
of the
Executive Committee
of the
International Association for the Properties of Water and Steam
held in
Berlin, Germany
7-12 September 2008

Plenary Session. Sunday, 7th September 2008. 9:07 am

The President of IAPWS, Cooper, welcomed the Executive Committee (EC) and other IAPWS members to Berlin for the ICPWS, EC and Working Group (WG) Meetings of IAPWS. The President officially opened the 2008 EC Meetings by introducing the National Delegates. Each of the Member and Associate Member countries of IAPWS was in attendance with the exception of Argentina/Brazil, France, Greece and Italy.

The President asked the head of the German National Committee to provide some opening comments. Rukes welcomed everybody to Germany and to the 2008 ICPWS Conference and the IAPWS meetings.

1. Adoption of Agenda

Provisional agendas had been posted on the IAPWS Website for all IAPWS members by the Executive Secretary in May and August 2008. There were no further agenda suggestions from the EC. The agenda was then approved by the Heads of all National Delegations and forms Attachment 1 of these minutes.

2. IAPWS Business and Appointment of Committees

2.1 Releases, Advisory Notes and Guidance Documents

The President indicated that the following seven documents had been circulated on the dates indicated to the National Committees by the Executive Secretary for final review prior to being approved during the current EC Meeting:

- Release on the Viscosity of Ordinary Water Substance. 7th December 2007.
- Supplementary Release on Properties of Liquid Water at 0.1 MPa. 1st May 2008.

- Release on the IAPWS Formulation 2008 for the Thermodynamic Properties of Seawater. 5th June 2008.
- Revised Release on the IAPS Formulation 1985 for the Thermal Conductivity of Ordinary Water Substance. 5th June 2008.
- Revised Advisory Note No. 3: Thermodynamic Derivatives from IAPWS Formulations. 4th August 2008.
- Revised Release on the Pressure along the Melting and Sublimation Curves of Ordinary Water Substance. 4th August 2008.
- Procedures for the Measurement of Carryover of Boiler Water into Steam. 19th May 2008.

Because the TPWS WG needed to have a final review of the first six documents, there was a possibility that the documents might not be approved by the EC before the General meeting on Thursday. Discussion followed and eventually a proposal was formulated that the documents should be approved by the EC and that only major exceptions should be reported to the EC at the Friday meeting. (Minute 7.1 reports on the confirmation of these documents by the TPWS and IRS WGs).

The EC approved the first six documents unanimously.

The President then proposed that the final document developed by PCC on Carryover should also be approved. But in this case the name for this new series of IAWPS products had not been approved by the EC. He asked the Chairman of PCC for clarification. Svoboda indicated that PCC suggested *IAPWS Technical Guidance Documents*. The President asked the EC for approval of both the name of these documents and for the Carryover Guidance.

The EC approved both items unanimously.

2.2 Press Release.

The President asked Bellows to serve on this Committee. The Clerk of Minutes from each WG will also provide input. Span will also be added to the Committee to ensure information on ICPWS is included. The Press Release is discussed in Minute 17.1 and Attachment 6.

2.3 Evaluation Committee on International Collaboration.

The President indicated that no proposals had been received by the Executive Secretary prior to the meeting, and that any suggestions from WGs should be given to the Executive Secretary by the end of day. The President then reminded the EC that if any were received that the Committee to review any proposals would consist of the WG Chairmen, with the President and Executive Secretary as ex. officio members. A chairman would be chosen by the Committee. The discussion of this Committee is reported in Minute 14.1.

2.4 IAPWS Awards Committees

2.4.1 Helmholtz Award Committee

The President indicated that there was a Helmholtz Awardee this year and that the Award would be presented during the ICPWS following the General Meeting. The Executive Secretary then reminded the EC that the Helmholtz Committee for the 2009 award would consist of a member from Japan, Russia, USA, Argentina/Brazil, and BIAPWS. The President asked the Japan delegate (Watanabe) to organize the committee and to report back to the EC on Friday with the names of the members of this committee (Minute 15.1).

2.4.2 Honorary Fellow Award Committee

The Executive Secretary requested that Tremaine remain as the Chairman of this committee for 2009 with Watanabe as the other member. The IAPWS President would be ex. Officio.

2.5 Host Country Location and Date for 16th ICPWS

The President indicated that the Vice President, the Executive Secretary and himself had reviewed the history of ICPWS locations and that BIAPWS was the primary country for the next location of an ICPWS. Initial discussions within BIAPWS had raised some problems with regards to having the ICPWS in 2012 because of the Olympic Games in London. The President suggested that a small committee be formed to discuss some of the overall aspects of ICPWS with regards to frequency, locations and expenditures. Vice President Friend was asked to lead this committee and report back to the President and Executive Secretary before the General Meeting on Thursday. Other members of the committee selected were: Rudge, Tremaine and Weber.

2.6 IAPWS Member Countries Defaulting on Dues

The President indicated that the Executive Secretary had been requested by the EC at the 2007 meeting to make contact with the countries defaulting on dues and to determine their future prospects. The President requested that Watanabe chair a committee with Daucik and Alexandrov to determine how the EC should approach this situation. The President requested that a report be provided before Thursday so that he could include it in his report to the General Meeting. This report is provided in Minute 12.1.

2.7 IAPWS Statutes and By-Laws

The President requested the Chairman of this Committee (Harvey) to provide a short report on the activities since the last EC meeting. Harvey reported that the following suggested changes had been made to the IAPWS Statutes and By-Laws:

- The authority for Statutes and setting IAPWS policy goes to the EC instead of the General Meeting, which in the future will become informational.
- Statutes changes must be voted on by the EC at a General Meeting.
- Members defaulting on dues will become an Associate Member after three years, but the EC may grant an exception.
- A number of minor changes were also made to the Statutes: a) to consistently allow for combined committees, b) clarification that the President cannot be the National Delegate, c) the ICPWS will be held at “approximately every four years”.
- A number of changes were made to the By-Laws: a) to allow electronic approval of WG documents, b) to allow for minor changes to ICRNs without delaying the document by a year, c) modification to the Helmholtz Award Procedures as approved by the EC in 2006.

Changes to the Statutes require approval by the EC and the General Committee. Changes to the By-Laws require only approval by the EC. The revised Statutes and By-Laws had been circulated to the National Committees in February 2008 and no comments had been received by the Executive Secretary, so the President proposed that the EC approve the process which will take these suggested revisions to the General Meeting on Thursday.

The EC Approved this Process Unanimously.

The Japanese Delegate then thanked the Committee and particularly Harvey as Chair for leading this effort.

2.8 and 2.9 Other business for General Meeting or Requiring Extensive Discussions

No other business was raised by the EC.

3. EC Mandate to Working Groups and Membership

3.1 Releases, Guidelines and Certified Research Needs.

The President indicated that Releases had been dealt with under item 2.1. The Executive Secretary indicated that three ICRNs needed completing by the WGs during the week: #17 on Amines, #21 on Ultra-supercritical plant chemistry, and #22 on Steam Chemistry in the Phase Transition Zone. He also indicated that two ICRNs were going to expire in September 2008 and needed a closing statement or revision: # 14 on Humid Air, and #15 on Metastable Steam.

3.2 Working Group Directions.

The President reminded the WG Chairmen that they should only report to the EC on Friday, those activities that needed approval or discussion by the EC.

4. Preview of ICPWS and by WG Chairmen of Weeks Activities

President Cooper requested the 16th ICPWS Chairman, Span, to provide a short overview of the ICPWS activities, and each WG Chairman to review briefly the main topics which would be covered in their WGs during the week. The ICPWS is covered in Minute 17.2. The details of the WG meetings are covered in detail in Minutes 7, 8 and 9 (Attachments 3-5).

The President closed the opening session of the EC at 10:05am.

Activities During the Week

The first day activities of the WGs and Executive Committee were followed by the ICPWS sessions on Monday to Thursday.

The full IAPWS program for the week is shown in Attachment 2.

Executive Committee Meeting. Friday, 12 September 2008

President Cooper opened the continuation of the EC Meeting at 8:37am. All members of IAPWS were present except Argentina/Brazil, France, Greece, and Italy. Cooper first asked the EC if there were any additional items that should be added to the Agenda. None were suggested. The Executive Secretary showed the latest Agenda with additional items relating to the new activities from the Sunday EC Meeting.

5. Acceptance of Minutes of Previous Meeting

President Cooper asked for comments and changes to the minutes of the EC meeting held in Lucerne, Switzerland in September 2007. No changes were noted, thus the 2007 Minutes were accepted.

6. President's Report

President Cooper indicated his comments at the General Meeting were the same as his report to the EC. He particularly wanted to emphasize that IAPWS had been very productive in the period since Lucerne with seven new/revised documents. He thought that the new PCC Technical Guidance documents would become very important for IAPWS in the coming years. On an IAPWS personality note, he wanted the EC to note that Professor Jan Sengers had received a Distinguished International Service Award at the University of Maryland.

7. Report and Recommendations of the Thermophysical Properties of Water and Steam (TPWS) and the Industrial Requirements and Solutions (IRS) Working Groups

Chairman Kretzschmar highlighted only those activities from the TPWS and IRS working sessions during the week which needed action by the EC or which he thought were of interest to the EC. He indicated that all of the WG activities had been conducted jointly. Full Minutes and the Agenda can be found in Attachment 3.

- 7.1 Kretzschmar indicated that the combined WGs had conducted final reviews of the Releases, Supplementary Releases and Advisory Notes which had been approved at the Sunday EC meeting (delineated in Minute 2.1). He then provided the following confirmatory notes for the EC:
IAPWS Formulation 2008 for Seawater. This Release is confirmed by the two WGs with some minor editorial corrections.
Release on Melting and Sublimation Pressure Curves. This release was confirmed by the two WGs.
Supplementary Release on the Properties of Liquid Water at 0.1 MPa. The WGs confirmed the Release.

Release on the IAPWS Formulation 2008 for Viscosity. The WGs confirmed the editorial changes associated with the references.

Revised Release on IAPWS Formulation for Thermal Conductivity. The WGs confirmed the Revised Release.

Revised Advisory Note Number 3. The WGs confirmed the revised Advisory Note Number 3.

- 7.2 Kretzschmar next provided information on activity with respect to other Releases, Guidelines and Advisory Notes:

Release on IAPWS Formulation 1995. The editorial changes to the Release were confirmed by the two WGs.

Revision of Release on IAPWS Formulation 1995. The two WGs agreed to change the proposed footnote on Table 1 of the Release so that it did not report different constants. The WGs plan a revised IAPWS-95 Release for 2009.

New Formulation for Thermal Conductivity. The WGs will have a draft ready for the 2009 meeting.

New Supplementary Release for Liquid Water for Oceanographic Use. This will include a Gibbs energy equation (F03 equation) for liquid water. SCOR/IAPSO recommends this equation for liquid water as their standard because it is computationally simpler than IAPWS-95 and more accurate than the IAPWS-IF97 equation for region 1. The WGs plan a Supplementary Release in 2009.

Revised Release on Ice. The WGs plan a revised release in 2009.

Revised Release on Seawater. The WGs plan an extension of the Seawater Release in 2009 for industrial use including desalination.

Guideline on Fundamental Constants. The WGs approved a minor update of this Guideline to reflect the latest CODATA adjustment. Kretzschmar proposed to the EC that this update be approved by the EC.

The EC approved this update unanimously.

Advisory Note Number 2 on the Role of Various IAPWS Documents. The President explained that the updates were necessary to explain the position of new documents to outside organizations. There were no changes of any numbers or equations. Chairman Kretzschmar then requested that the EC approve these updates.

The EC approved the updated Advisory Note unanimously.

- 7.3 Chairman Kretzschmar next discussed the activities of the two WGs on ICRNs:

ICRN 14 on Humid Air. The WGs recommend to EC that this ICRN be expired. A closing statement will be prepared and forwarded to the Executive Secretary. A new Task Group has been formed to consider the future related needs and to produce a draft new ICRN for 2009.

New ICRN 23. The WGs approved a new ICRN on Dew Point for Flue Gas of Power Plant Exhaust with the provision that oxyfuel items will be added. The ICRN will need final Editorial Committee review prior to sending to the Executive Secretary for Postal Ballot.

- 7.4 The Chairman next discussed the liaison with CCM (Consultative Committee for Mass and Related Quantities). The WGs had authorized the Task Group to proceed with the joint publication concerning recommendations for computing the density of water for metrology and other purposes to be submitted to *Metrologia* and to prepare an Advisory Note for adoption in 2009. Kretzschmar then proposed that the EC approve the following joint recommendations:
- a) For use in metrology over its recommended range which is liquid water from 0 °C to 40 °C at pressures near atmospheric. It should be extrapolated outside of this range.
 - b) Densities computed from the IAPWS-95 formulation are consistent with the CIPM standard within the region of validity of the CIPM formulation. For uses outside the CIPM range of validity, the IAPWS-95 formulation is the preferred method for obtaining accurate densities for water.
 - c) For uses covering a range of conditions, some of which are inside the range of validity of the CIPM standard and some of which are not, it is generally preferable to use the IAPWS-95 formulation for the entire calculation in order to avoid discontinuities.

The EC approved this set of joint recommendations unanimously.

- 7.5 The Chairman next informed the EC that 1,158 downloads of the software “*Steam Tables for Pocket Calculators*” had occurred from the IAPWS website under the “Education” category. 606 of these had occurred since the last IAPWS meeting. A proposal to place a similar link for an Excel add-in was approved by the two WGs. The Chairman requested that the EC approve and indicated that the German NC must also give its approval as required by the existing IAPWS policy.

The EC approved unanimously.

- 7.6 With regards to membership Kretzschmar requested that the following six new members are approved:
- J. Gernert, Ruhr University Bochum, Germany (TPWS)
 - T. McDougall, CSIRO, Australia (TPWS)
 - S. Seitz, PTB Braunschweig, Germany (TPWS)
 - R. Tailleux, University of Reading, UK (TPWS)
 - D. Wright, Bedford Institute of Oceanography, Canada (TPWS)
 - R. Harwood, Siemens Orlando, USA (IRS)

The Chairman also requested that the following three people are withdrawn from membership:

H. Sato, Japan (TPWS and IRS)
M. Uematsu, Japan, (TPWS)
J.G. Feller, USA (IRS)

The EC approved these membership changes unanimously.

8. Report and Recommendations of Physical Chemistry of Aqueous Systems
Working Group (PCAS)

Chairman Lvov provided the PCAS Report to the EC. Full Minutes can be found in Attachment 4. He covered the following items with the EC:

- 8.1 International Collaboration. The WG approved the progress report on the international collaboration project between Canada (Tremaine) and the Czech Republic (Sedlbauer) which is budgeted with an IAPWS contribution of \$14,000 for the living expenses of PhD student Jana Ehlerova. The project is for measurements on copper (II) complexation vs. temperature.
- 8.2 Task Groups. The WG had conducted a joint symposium with the Electrochemical Society in Washington, DC in 2007. The financial support of IAPWS had been used to support seven invited speakers and to help organize the symposium. The Chairman reported that this was a very successful symposium.
- 8.3 With regards to membership of PCAS, Lvov requested that two people become members of the WG:

D. Guzonas, AECL, Canada
N. Matubayasi, Kyoto University, Japan

The EC approved these two members unanimously

- 8.4 Chairman Lvov indicated that he was going to step down as Chairman of PCAS and that the WG had discussed the possibilities for a Chairman and Vice Chairman of the WG. He reported that he had received a letter from the current Vice Chariman, Corti, requesting that he would not be able to continue in that position. Lvov then proposed to the EC that Professor Nakahara becomes the new PCAS Chairman and that Dr. Anderko becomes the Vice Chairman. A gradual transition from himself would take place between now and 1st January 2009.

The EC approved the new chairmanship of PCAS unanimously

- 8.5 Lvov reported to the EC that the PCAS WG had met jointly with PCC to discuss ICRNs 17, 21 and 22 (Minute 9.2).
- 8.6 The Data book on “*Hydrothermal Properties of Materials*” is expected to be published in December 2008.
- 8.7 Chairman Lvov next reported on the joint IUPAC/IAPWS Project on Standard Partial Molar Properties of Solutes. He reported that the IAPWS representative (Mayer) had changed jobs and had withdrawn from the project. Mayer had developed a status report as requested at the 2007 EC Meeting. Lvov presented some of the salient features. He then indicated that PCAS member, Sedlbauer, had indicated that he was prepared to take over the project and had been requested to develop a status report for continuing the project. The Japanese delegate, Watanabe, suggested to the EC that IAPWS did not want to delay this project and encouraged PCAS (Sedlbauer) to develop quickly an accurate financial analysis and to interface with IUPAC. Much discussion by other EC delegates then took place. Finally Chairman Lvov made the proposal that Sedlbauer should prepare the status report which would be reviewed and approved by four PCAS members prior to sending it to the Executive Secretary in the time period January to March 2009. A postal ballot for continuing the project would then be conducted.

The EC agreed unanimously with this proposal.

9. Report and Recommendations of Plant Cycle Chemistry Working Group (PCC)

Chairman Svoboda highlighted those activities that needed action/approval by the EC. A full written report of the PCC WG activities forms Attachment 5.

- 9.1 International Collaboration on *Assessment of the State of Art of Sampling Corrosion Products from Water/Steam Cycles* has been completed under budget. The WG will propose a follow-on activity on sample processing. This will be forwarded to the Executive Secretary for Postal Ballot by the end of 2008.
- 9.2 ICRNs. Svoboda reported that ICRNs on Amines (17) and Ultra-supercritical plant chemistry (21) were reviewed in a joint meeting with PCAS. They will be amended and forwarded to the Editorial Committee and then for postal ballot. ICRN 22 on Nucleation in Steam Turbines is still under review by PCC. The Czech Republic delegate (Hruby) indicated that he would like to coordinate the development with PCC.

- 9.3 Technical Guidance Documents. Svoboda indicated that the first of these new IAPWS documents on Drum Carryover was approved by the EC at the Sunday meeting.
- 9.4 Task Groups. The PCC Chairman reported that the WG had two continuing Task Groups on Risk for Asset Damage and on Review of European Standard EN 12952.12. He also indicated that a new Task Group had been formed on Technical Guidance Documents on Cycle Chemistry.
- 9.5 PCC Membership. The Chairman proposed two new members for PCC:
- F.U. Leidich, Alstom, Germany
D. Smetanin, Moscow Power Institute, Russia

The EC approved these membership changes unanimously.

10. Future Collaboration on Seawater

The President requested the German Delegate, Rukes, to make a motion on this topic. Rukes proposed to the EC that a Subcommittee on Seawater (SOS) be established. This new subcommittee will work in close cooperation with TPWS and IRS but will separately address its own specific topics including: a) the description of the properties of seawater, b) the formulation of documents on definitions, properties and standards for seawater, and c) the endorsement of those standards by international bodies. The subcommittee is suggested to consist of members from the SCOR/IAPSO WG 127 and also members of TPWS/IRS and PCAS with interest in seawater problems. SOS may additionally rely on support by external colleagues.

The EC unanimously approved the formation of the new IAPWS Subcommittee on Seawater (SOS), which will report directly to the EC.

The President then proposed Feistel as the first chairman of SOS.

The EC unanimously approved this officer choice.

Feistel indicated that SOS will be populated by members from four areas: oceanography, industrial applications, transport properties and chemical properties.

11. Editorial Committee Report

President Cooper reported that Editorial Committee Chairman Harvey had returned home but had left a report on the Editorial Committee. Cooper reported that the Editorial Committee had reviewed and approved all the IAPWS documents delineated in Minute 2.1. In addition the Editorial Committee had

provided assistance on the proposed ICRN on Dewpoint and updated Advisory Note Number 2.

The President next proposed to the EC that another English speaking person should be added to the Editorial Committee. The US Delegate, Friend, suggested that the English speaking National Committees (BIAPWS, Canada and USA) should consider nominating one of their members at the 2009 EC Meetings.

Action: BIAPWS, Canada and the USA to consider nominating somebody to the Editorial Committee in 2009.

12. Membership and Associates

12.1 Members Defaulting on Dues.

The President asked the Chairman of the Committee formed on Sunday (Minute 2.6) to report on the deliberations during the week. Watanabe indicated that his committee (Daucik and Alexandrov) had reviewed the information provided by the Executive Secretary. This indicated that France had not been able to pay the IAPWS Dues for the last four years, Argentina/Brazil for the last three years and Italy since prior to 2004. Letters had also been sent by the Executive Secretary to a number of Member Countries to determine the current status of their IAPWS activities. No response had been received from France and Italy. Argentina/Brazil had responded that participation in IAPWS in the future is unlikely. Russia indicated positively that the Russian National Committee had been reconstituted and had new direction which had allowed payment of the IAPWS dues for the last two years. With regards to the National Committee of Greece, Assael had indicated that he was stepping down as Chairman and that Kastanaki from PPC would be taking over.

Based on this information Watanabe indicated that his Committee proposes the following to the EC:

- Italy should become an Associate Member. Italy had previously requested this action in 2004, but the EC at that time had decided to allow the National Committee to remain as a Member “for the time being”.
- Argentina/Brazil should become an Associate Member as suggested in the recent correspondence from Corti.
- France should remain as a Member with the decision being reviewed by the EC in 2009. The President and Executive Secretary had met during the week with seven individuals from France and they had given some assurance that they were very

interested in reactivating the National Committee. They will report to the Executive Secretary by January 2009.

The EC approved the proposal unanimously.

Action: The President will send a letter to Italy and Argentina/Brazil explaining the action taken by the EC.

12.2 Switzerland as an Associate Member

The President requested the Head of the National Committee of Switzerland, formed in 2007, to say a few words. Svoboda reported that the Swiss National Committee has hardened its local committee and held a meeting of members during the last year.

13. Executive Secretary's Report

13.1 Financial, Auditors and Dues

The Executive Secretary reported that IAPWS remained on a sound financial footing with currently over SFrs 67,193 in the Swiss bank account and about \$17,969 in the US account for a total of \$79,054 combined. The status as at 24 August 2008 in the bank accounts had been provided to each National Delegate present at the EC meeting.

The Executive Secretary next reported that the 2007 financial statements had been forwarded to the IAPWS Auditors in January 2008. Both VDI in Germany and Mr. Miyagawa in Japan had reviewed and approved the financial statements. The Auditors' reports had also been provided to all the National Delegates present.

The Executive Secretary proposed that these organizations continue to act as auditors.

The EC approved this unanimously.

The Executive Secretary proposed to the EC that the dues structure for member countries remain unchanged for 2009.

The EC unanimously agreed to this proposal.

The Executive Secretary also provided a rough estimate of the income and known planned expenditures for 2008/9. He apologized that he had not included any expenses which might be associated with the reactivation of the IAPWS/IUPAC project (Minute 8.7).

13.2 Time and Place of the 2009, 2010 and 2011 Meetings

The Executive Secretary reported that he had received information from Zeijseink about holding the 2009 EC and WG Meetings in Arnhem, The Netherlands on 6-11 September 2009. The meetings will be held at the Business Park in Arnhem (KEMA Location) and will be supported by the Dutch group of power plant chemists. Further details will be developed in October 2008. The EC requested that a website is developed for the meetings.

The Executive Secretary also indicated that it is tentatively planned to hold the 2010 meetings in Canada and the 2011 meetings in the Czech Republic. The final decision on these will be made after the timing and location of the 16th ICPWS are developed (Minute 17.2).

14. Guidelines, Releases, Certified Research Needs, and International Collaborations

The President indicated that the Releases and ICRNs had been discussed within the WG Reports so no further action was required by the EC.

14.1 International Collaborative Projects.

The President indicated that no new international collaboration projects had been proposed.

15. IAPWS Awards

15.1 IAPWS Helmholtz Award

The President reported that Dr. N Yoshii from Japan had been selected as the 2008 Helmholtz Awardee and that he had been presented with the award prior to his Helmholtz Lecture immediately following the General Meeting of IAPWS on Thursday. He then asked the Japanese Delegate for the names of the 2009 Helmholtz Award Committee. The 2009 Helmholtz Committee will consist of: Chairman Nakahara (Japan), Petrova (Russia), Anderko (USA), Corti (Argentina/Brazil) and Rudge (BIAPWS). Nominations will be due to the Executive Secretary by January 31, 2009.

15.2 IAPWS Honorary Fellowships

The President reported that Svoboda (Switzerland) had been elected Honorary IAPWS Fellow, following the established procedures and after unanimous approval through the postal ballot conducted by the Executive Secretary. The Fellowship Award had been presented at the ICPWS/IAPWS Dinner on Wednesday evening by the IAPWS President.

The President reminded the EC of the Awards Committee for 2009 with Tremaine as Chairman and Watanabe as member with the IAPWS President as ex.-officio member. Nominations are due to the Executive Secretary by January 31, 2009.

16. Election of Officers for 2009 and 2010

The President indicated that he would step down at the end of 2008 and that Vice President Friend will assume the position of IAPWS President on January 1, 2009. According to the Statutes, the election of the next Vice President should be made at the end of the EC meeting in even years. The President and Executive Secretary had checked the recent history and proposed that the Danish National Committee should be asked to nominate one of their committee members for the position. The President asked the EC if there were any other suggestions. None were suggested, so he then requested the EC to approve this selection.

The EC unanimously approved this selection.

Action: The Danish National Committee should inform the Executive Secretary of their nomination for Vice President after the next meeting of their committee, and before the end of 2008.

17. New Business

17.1 Press Release

The President requested that Bellows project the Press Release for review by the EC. Suggestions were provided by the EC and the final version is contained in Attachment 6.

17.2 15th and 16th ICPWS

The President first requested Span as the 15th ICPWS Chairman to present a short status report. Span indicated that there had been 202 participants from 23 countries, and that 150 presentations had been given. Poster sessions and paper presentations were included. He mentioned that VDI had taken care of the registrations and the ICPWS Website. CDs of the proceedings with an ISBN number were available and he requested that each National Committee took 15 copies to distribute in home country libraries. Discussion by the EC requested that investigations be made as to whether the proceedings could be made available on the IAWPS website.

The President once again wanted to provide his appreciation on behalf of IAWPS for the ICPWS arrangements and to the local organizing committee as well as the international program committee.

The President then asked the BIAPWS Delegate, Rudge, to report on the decision making process for the 16th ICPWS. Rudge indicated that he had collected data during the week which BIAPWS would now analyze and report back with a decision to the Executive Secretary by the end of January 2009 on whether BIAWS would host the 16th ICPWS. The Executive Secretary indicated that a contingency plan has been developed in the case that BIAPWS decides negatively.

The last item with respect to future ICPWS, Friend provided detail on the committee formed at the Sunday EC meeting. The committee had considered the relevant by-laws and statutes, the financial impact on IAPWS, the needs of several research communities, and the tentative proposal from the delegation from BIAPWS. The committee recommends to the EC that the proposal be accepted to hold the 16th International Conference on the Properties of Water and Steam in 2013 in a location (and on dates) to be determined by the local organizing committee from BIAPWS.

17.3 Review of Progress of Research in Member Countries

Written reports on progress in member countries were not reported to the EC but were either distributed to other members and the Executive Secretary during the IAPWS week, or sent to the Executive Secretary after the meetings. They are attached to these minutes as follows:

Britain and Ireland	Attachment 7
Canada	Attachment 8
Czech Republic	Attachment 9
Germany	Attachment 10
Russia	Attachment 11
USA	Attachment 12

17.4 Participants

Attachment 13 provides a list of participants at the 16th ICPWS and IAPWS EC and WG Meetings in Berlin, Germany in September 2008.

17.5 List of Members

An up-dated list of members of the Executive Committee, Working Groups, and Honorary Fellows will be developed by the Executive Secretary following the Berlin Meetings. This will be forwarded electronically to the Head of each National Committee.

18. Closing Remarks and Adjournment

The President thanked the German National Committee for hosting the 16th ICPWS and the IAPWS Meetings. He also thanked everybody for participating at this EC meeting. Then he formally closed the 2008 EC meeting at 12:21 pm.