

---

## 1. IAPWS POWER CYCLE CHEMISTRY (PCC) WORKING GROUP (WG) PROGRAM FOR IAPWS 2024 – BOULDER, COLORADO, USA

---

### REVISION 1.1 – DRAFT FOR PCC ISSUE AND COMMENT, 20 JUNE 2024

David Addison – PCC Chair – [david.addison@thermalchemistry.com](mailto:david.addison@thermalchemistry.com)

Paul McCann – PCC Vice Chair - [Paul.McCann@uniper.energy](mailto:Paul.McCann@uniper.energy)

Krik Buecher – PCC Vice Chair - [Kirk.Buecher@mt.com](mailto:Kirk.Buecher@mt.com)

Taro Ichirao – PCC Vice Chair - [taro.ichihara.jp@mhi.com](mailto:taro.ichihara.jp@mhi.com)

#### Program Notes

1. The PCC program has had to be fitted into the overall ICPWS program and this has caused added complexities
2. Because of ICPWS IAPWS/PCC sessions start on Sunday the 23 June 2024 at 09:00
3. The PCC meeting room for Sunday is ECCR -105
4. The PCC meeting room from Monday onwards is the “Discovery Learning Center. It is sort of behind (northeast) the Engineering Center where much of the conference will be” – more details to follow
5. There is a degree of flexibility in the program to adapt as needed during the week for PCC needs and other working group needs
6. Break times will align with the ICPWS program
7. To be confirmed
  - a. Possible joint working PCAS session
  - b. Other PCC related internal presentations

---

#### SUNDAY 23 JUNE

09:00 – 11:00	IAPWS EC initial meeting – (ECCR 105)
11:00 – 4:00	PCC Internal – PCC WG Meeting – (ECCR 105) <ol style="list-style-type: none"><li>1. Introduction to PCC 2024 Meeting</li><li>2. Amendments / Adoption of Agenda</li></ol>

3. Appointment of Clerk of Minutes
4. Approval of Minutes of PCC Turin 2023
5. Review of Actions from last PCC WG Meeting
6. IAPWS TGD's Updates– (Barry Dooley)
  - a. TGDs Overview
  - b. Corrosion Product Sampling
  - c. Flue gas condensation
  - d. Geothermal Steam Chemistry
  - e. Electrode Boiler Chemistry
  - f. Application of FFS in Nuclear Plants
  - g. Instrumentation
  - h. Steam Purity
  - i. Application of Film Forming Substances in Fossil and Combined Cycle Plants Revision with FFS Conference Materials
  - j. Carryover
7. PCC Communications
  - a. PCC WG update calls
  - b. LinkedIn
  - c. Webinars
8. Review of ICPWS/STP program and session of interest to PCC and program adjustment as needed
9. PCC TGD Groups working time

4:00 – 8:00 pm      ICPWS/STP Welcome Reception (UMC Ballroom)  
9:00 – 11:00 pm      Evening Social (C4C Colorado Room/Patio)

---

## MONDAY 24<sup>TH</sup> JUNE

- 08:30 – 12:30 pm ICPWS/STP Key Session– Open Plenary Session, Plenary Lectures, Including **IAPWS Gibbs Award Lecture (Math 100)**
- 1:45-2:50 pm ICPWS/STP Key Session - (ECCR1B40) Modelling and Calculations for the Power Industry 1
- 3:50 -5:35 pm ICPWS/STP Key Session - (ECCR200) Physical Chemistry of Aqueous Systems 2: High Temperatures-High Pressures, Electrochemistry, and Corrosion

---

## TUESDAY, 25<sup>TH</sup> JUNE

08:30 – 09:30 ICPWS/STP – Power Cycle Chemistry 1 –(ECCR 200)

**How IAPWS Technical Guidance Documents Address the Major Cycle Chemistry Influenced Problems in Fossil and Combined Cycle Plants**08:35 – 09:15

**Speaker: Barry Dooley**

**Grain Unit Preservation and Return to Service**09:15 – 09:35

**Speaker: Paul McCann**

10:35 – 11:40 ICPWS/STP – Power Cycle Chemistry 2 –(ECCR 200)

**Commissioning of a 49 MW Electrical Boiler in Denmark**10:40 – 11:00

**Speaker: Monika Nielsen**

**Water Quality Aspects for PEM Electrolysis**11:00 – 11:20

**Speaker: David De Vos**

**Electrochemical Investigation of Boiler Steel Corrosion Under Chloride and Sulphate Contamination**11:20 – 11:40

**Speaker: Benjamin Loder**

1:35 – 4:00 pm PCC Internal Session: Continuation of TGDs Related PCC Presentations/Updates (Discovery Learning Center)

1. Dutch IAPWS Update – Ludwin Daal
2. Electrode Boiler update – David Addison
3. Geothermal steam purity update – David Addison
4. EPRI Nuclear Activities – Ian Duncanson
5. PCC TGD Groups working time

7:00 – 8:30 pm ICPWS/STP - **IAPWS Helmholtz Award Lecture & General Meeting of IAPWS (Math 100)**

9:00 – 11:00 pm ICPWS/STP - Evening Social (C4C Colorado Room/Patio)

---

## WEDNESDAY 26<sup>TH</sup> JUNE

- 08:30 to 09:55 ICPWS/STP - Carbon Capture, Transportation, and Storage 2:  
Thermophysical Properties of Amine Systems for CO<sub>2</sub> Capture (ECCR135)
- 10:35 - 12:20 Carbon Capture, Transportation, and Storage 3: Thermophysical Properties for Next-  
Generation CO<sub>2</sub> Capture (ECCR135)
- 1:35 – 4:00 pm PCC Internal Session: Continuation of TGDs Related PCC  
Presentations/Updates (Discovery Learning Center)
1. Possible PCC related ICRNS
  2. Possible PCC related future International Collaborations
  3. Discussion on PCC / IAPWS future direction – continuation of 2022 and  
2023 discussions
  4. PCC TGD Groups working time
  5. PLACEHOLDER - TBC: PCAS and IRS and PCC Joint Discussion
    - a. Closer collaborations
    - b. Areas of common interest
- 6:30 pm till late **IAPWS Banquet**  
(Additional fee; Chautauqua Dining Hall)  
**Bus departs at 6:00 pm (6:15 from near hotels)**

---

## THURSDAY 27<sup>TH</sup> JUNE

09:00 – 12:00

PCC Internal Session: Continuation of TGDs Related PCC Presentations/Updates (Discovery Learning Center)

1. Additional PCC internal presentations time
2. PCC TGD Groups working time
3. IAPWS TGD's Updates– (Led by Barry Dooley) – progress updates from IAPWS 2024 and progress plans from Task Group Chairs
  - a. TGDs Overview
  - b. Corrosion Product Sampling
  - c. Flue gas condensation
  - d. Geothermal Steam Chemistry
  - e. Electrode Boiler Chemistry
  - f. Application of FFS in Nuclear Plants
  - g. Instrumentation
  - h. Steam Purity
  - i. Application of Film Forming Substances in Fossil and Combined Cycle Plants Revision with FFS Conference Materials
  - j. Carryover

1:35 – 4:00pm

PCC Internal Session: Continuation of TGDs Related PCC Presentations/Updates (Discovery Learning Center)

1. Additional PCC internal presentations time
2. PCC TGD Groups working time
3. PCC WG Business - Led by David Addison – PCC Chair
  - (1) Progress Reports 2023/2024 and Future PCC Activities
  - (2) Review, update, rationalization and consolidation of previous PCC actions still outstanding
  - (3) Proposals for new TGD's summary
  - (4) International Collaboration
  - (5) ICRNs – Review and Possible New Additions

- (6) PCC Public Relations / Contribution to Press Release
- (7) Changes in PCC Membership and Election of Officers
- (8) Adjournment

---

## FRIDAY, 28<sup>TH</sup> JUNE

08:30 – 13:00 IAPWS Executive Meeting (DLC)