



Washington DC Section

Newsletter

April 2009



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Water Quality Requirements for Combined Cycle Power Plants

Christopher Huth
Bechtel Power Corporation
Frederick, Maryland

Due to the uncertainty on the legislation concerning global warming (due to CO₂ emissions), combined cycle (CC) power plants have just started gaining popularity again because of smaller carbon emissions compared to coal fired plants. From the last big wave of combined cycle construction, many challenges and lessons learned particularly with regard to water quality requirements will be implemented in the upcoming CC power plants.

Water chemistry plays an important role during normal operation as well as startup and commissioning. A failure in controlling chemistry can lead to multiple issues including voiding warranties on equipment. For this reason, the success or failure of initial startup and commissioning depends upon selection of water chemistry control philosophy. This presentation will highlight the steps taken during the final phases of construction through startup to achieve desired water chemistry in the shortest timeframe possible. Also, discussed are challenges and suggested solutions with respect to volatility of various salts in the steam and water. In addition, the Electric Power Research Institute (EPRI) cycle chemistry guidelines will be presented and discussed. This presentation discusses future challenges with respect to both short-term and long-term goals, as related to the water chemistry control for heat recovery boilers during startup and commissioning as well as during long-term normal operation.

Presenter:
Chris Huth is currently working in the Water Treatment Group in Mechanical Engineering department at

Bechtel. He provides technical support in areas of water treatment and chemistry to Nuclear, Fossil and New Technologies for power projects and proposals. He attended University of Maryland College Park where he received Bachelor's of Science in Chemical Engineering in May 2007.

Date: April 23, 2009

Time: 6:30 pm

Location:

SAIC - 4001 North Fairfax Drive, Arlington, VA 22203 Suite 175

2 Blocks from Ballston Metro
Street Parking is free after 6 PM

Pizza and soda will be served.

Registration:

To register, call the ASME Washington Section Executive Secretary, Andrea Gironda at (703) 489-9503 or e-mail her at agironda@verizon.net by April 20th. Also provide your contact phone number to Andrea.

Participation in 2009 Regional Science and Engineering Fairs

As is the tradition every March, ASME Washington DC Section participated as a community organization in the 2009 edition of regional science and engineering fairs for middle and high school students. The section provided a cadre of volunteer judges and sponsored prizes for the first three-place winners at each fair. The wheels were set in motion in the beginning of February when ASME-DC registered as a participating organization in five regional fairs: Fairfax, Montgomery, Northern Virginia (Arlington), Prince George's and Washington DC. A call for volunteer judges soon went out through the mailing list and by

word of mouth amongst colleagues. The response was immediate and enthusiastic, and teams of three to four judges stepped up for each fair. Every team had a designated lead judge and was provided with guidelines in judging the hard work of promising students.

This year's fairs were no different from previous years' in the abundance of innovative and creative projects. On one hand, it made the job of our judges pleasantly difficult but on the other it displayed the enthusiasm, dedication and skills of the students. As the results show, these particular traits were not limited to older students from high schools. In fact, middle schoolers appear prominently in the awardees list. At the end of each fair, the first and second place winners were provided with certificates of achievement and letters of invitation to the awards dinner event. The third place winners were given cash prizes immediately along with certificates and letters of appreciation. The awards dinner will take place on May 13 to award first and second place winners with cash prizes and to honor their achievements. Finally, ASME-DC Board of Directors would like to thank all judges for their efforts and valuable time. In recognition of their contribution, they are also invited as guests of the Section in the upcoming dinner.

Engineering in the Global Market: Keys for Success

The 2009 ASME Annual Meeting will be held June 13–17, at JW Marriott®, Palm Desert, Calif. The meeting's program consists of plenary sessions, seminars, professional development sessions, and a Career Expo.

Based on the theme “Engineering in the Global Market: Keys for Success,” the meeting will enable engineers to gain insight about managing in global engineering markets. Topics to be covered will include global collaboration and partnerships; effectively managing a global supply chain; development of universally applicable codes and other keys to success in today's global engineering market.

The plenary sessions are titled “Winning Strategies for Global Engineering: Product Processes and Productivity,” “Global Partnerships and Collaborations: Best Practices and Lessons Learned” and “Enhancing Your Knowledge of Global Trade: Codes and Standards as a Gateway to Global Markets.” Each plenary session will run for 90 minutes and will feature expert commentary from CEO and vice president-level

corporate decision-makers, academic scholars, and business consultants. Andrew W. Reynolds, deputy S&T adviser to the Secretary of State, U.S. Department of State, will chair and moderate the plenary sessions. Reynolds has led strategic planning efforts addressing science, engineering and technology issues in foreign policy and within the U.S. government.

Seminars will explore the subjects treated in the plenary sessions, although in greater depth. The 75-minute workshops will provide a forum for questions and answers between speakers and attendees.

The professional development program at the meeting will focus on building career skills that are critical to success in the global marketplace. You can earn up to 14.5 PDHs for attending the meeting.

For information, visit

www.asmeconferences.org/annualmeeting09 or call (866) 519-1299.

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ASME Y14.5 -2009 Now Available

ASME has announced that its Geometric Dimensioning and Tolerancing (GD&T) standard, *ASME Y14.5 – 2009*, has been revised and is now available for purchase.

The *ASME Y14.5 – 2009* standard, an essential communications tool for top engineers worldwide, has undergone its first revision in more than 15 years. It includes important changes that better suit the needs of the 21st century engineer. Changes that address the concept of feature design, surface boundaries and axis methods of interpretation are included among others.

The revised standard is now available for purchase on ASME's online catalog. The site also offers discounts on related GD&T standards, personnel certification, handbooks and training courses to aid engineers in understanding the language of GD&T.

For more information visit: <http://go.asme.org/gdt>.

ASME To Launch New Nuclear Seminar Series in June

In June, senior level executives from all areas of the nuclear power industry will convene in Atlanta, Ga. to share their expertise and to provide success factors for the nuclear renaissance during ASME's new Nuclear Technical Seminars program.

The new program, entitled, "Blueprint for the Nuclear Renaissance," which will take place from June 22-23 at the J.W. Marriott Buckhead, was developed as a forum for engineers to learn about design, construction, startup and operation for the next group of nuclear power plants from leading expert in the nuclear industry.

The five in-depth seminars will examine the industry's newest trends and will be led by more than 30 nuclear power professionals from organizations such as Areva, Bechtel, Exelon, Sandia National Lab and Westinghouse.

One of the seminars, Nuclear Power Plant Design, will provide an overview of the steps required to produce the design necessary to purchase, fabricate and construct a nuclear power plant. The program will also feature an opening plenary session, "Success Factors for the

Nuclear Renaissance," which will offer an overview of the opportunities and challenges facing the next generation of U.S. nuclear power plants.

For more information, contact Jennifer Delda, Program Manager, at 212 591 7108 or deldaj@asme.org or go to www.asmeconferences.org/nuclear09

2009 Human Powered Vehicle Challenge

HPVC East Hosted by Drexel University,
Philadelphia, PA, April 17-19, 2009

HPVC West Hosted by Portland State University,
Portland, OR, May 1-3, 2009

The 2009 Human Powered Vehicle Challenge is just around the corner! Spread the word!

Human Powered Vehicles are aerodynamic, highly engineered vehicles that may be for use on land, in the water or the air. The Human Powered Vehicle Challenge (HPVC) encourages students to design and construct an environmentally friendly vehicle that is fast, sleek, and safe and can be used for everyday activities. The point of the competition is to showcase the elegance and ingenuity of design, including presentation, practicality and safety.

To learn more or to register, go to www.asme.org/hpv.

Job Wanted

Hello, my name is James Mulford. I recently relocated to Washington, DC and I am interested in entry level career opportunities. I graduated with Bachelor of Science in Mechanical Engineering complemented with a minor in Finance from the University of Nevada Las Vegas. I have knowledge in MATLAB, AutoCAD, and Microsoft Office programs. My goal is to work diligently on current and future projects which play an integral part in assisting with innovative and effective solutions for the United States government and other clients. Thank you and I look forward to hearing from you soon. My contact information is as follows:

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