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Hosted by



July 13-15, 2008
Hyatt Regency Savannah
Savannah, GA

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15th Annual
APC
Round Table
& Expo

2008
Show Guide

The PCUG Networking Center



What is the PCUG Networking Center?

It is a service that enables you to contact other PCUG members about technical issues. The PCUG Networking Center is available only to PCUG members.

How can I access the PCUG Networking Center?

Contact Bob Candelaria, the designated Reinhold Environmental Administrator for this service, by:

- ◆ Sending an email to robert.candelaria@reconsulting.info
- ◆ Faxing your question to 847-498-1512
- ◆ Calling Bob at 928-620-3132

Regardless of how you chose to contact the Networking Center, Bob will forward your request based on his 32 years experience in air pollution control at Salt River Project. The appropriate member(s) of the PCUG will then respond to his inquiry and Bob or a PCUG member will in turn contact you.

2008 PCUG Steering Committee



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Welcome to

the 15th Annual



APC



**Round Table
and Expo**

July 13-15, 2008 Hyatt Regency Savannah, Savannah, Georgia

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**2009 NO_x-Combustion
Round Table and Expo**

followed by the
NO_x PCUG Meeting

Hosted by FirstEnergy

February 9-12, 2009

Renaissance Cleveland Hotel, Cleveland, OH

**2009 APC
Round Table and Expo**

followed by the
APC PCUG Meeting

Hosted by Entergy

July 12-17, 2009

The Woodlands Resort, The Woodlands, TX

Workshops and Panels

Monday, July 14

8:00–9:00 am

Welcome and Keynote Speaker: Charles Huling, GPC Environmental Affairs VP, presents “Georgia Power’s enviroNmental commitment” (Scarborough Room) Mr. Huling will discuss Georgia Power Company’s environmental challenges, solutions, balance and stewardship.

9:30–10:30 am

Workshop I: “Theory of High Frequency Power Supplies” by Per Ranstad, Alstom (Scarborough 3) The presentation will include fundamentals of high frequency power conversion as well as its application to ESPs. Different circuits will be discussed as well as specific demands in high voltage applications and their impact on the electrical circuit. System aspects such as control, reliability, availability, power losses, active and reactive power is also covered. The impact of the power supply on the collecting efficiency and the electrical properties of the ESP for different processes are presented, covering aspects like voltage ripple, corona discharge, dust resistivity, holding forces, etc.

Panel I: “Mercury Measurement/CEMS” Chairman: Sharon Sjoström, ADA-ES Panelists: Chuck Dene, EPRI; Clark Mitchell, Southern Co.; David Nuckols, Dominion Resources (Scarborough 1 & 2) Hundreds of mercury CEMs have been purchased and installed in the past two years. Experience gained from this process, plans for certifying these instruments and still to be resolved challenges will be discussed.

Workshop II: “Mist Eliminators: O&M” by Ron Richard, RE Consulting (Scarborough 4) This session covers the operating parameters that are the most important to keep mist eliminators clean and operating at maximum efficiency. It also covers the design parameters that will allow maintenance activities to effectively clean a mist eliminator should it become plugged with deposits.

Workshop III: “Biomass/Co-firing” by Tom Johnson, Southern Company. (Savannah Room) The workshop will describe Southern Company’s experience with biomass co-firing in selected pulverized coal units. Major results will be discussed with particular regard to impacts on pulverized coal boiler fuel handling, feeding, boiler efficiency, emissions and economics. Southern Company has also initiated a study to examine the feasibility of generating electricity from 100 percent biomass, in contrast to co-firing. The overall goal is to learn if this process can generate power on a cost-effective basis.

11:30 am–12:30 pm

Workshop IV: “ESP Control Fundamentals” by Paul Ford, Redkoh Industries (Scarborough 3) This dialog between the presenter and the audience will cover the basic power circuits used by most control manufacturers, discussion of the various control parameters and their effect on precipitator operation, how electrical readings reveal precipitator problems, and some basic troubleshooting techniques.

Panel II: (begins at 11:00 am) “ESP/FF/WESP - Is It Ever Enough?” Chairman: Bob Candelaria, RE Consulting Panelists: Scott Williams, Duke Energy; Greg Betenson, PacifiCorp; Joe Kaminski, Progress Energy; Stephen Francis, Alstom Power; Buzz Reynolds, Siemens; Tom Lugar, Fisher-Klosterman (Scarborough 1&2) With aging equipment and pending environmental regulations, utilities need to take a holistic view when addressing rebuilds and retrofits. This has become one of the most important parts of our planning process. Will the “new” equipment fit the need and more importantly be compatible with what is coming in the future? This panel will share some of their vast experience with those issues.

Workshop V: “Corrosion Issues In Scrubbers” by Gordon Maller, URS (Scarborough 4) This workshop will present background information concerning the fundamentals of corrosion, will provide a history of how corrosion issues in scrubbers have been dealt with in the past, and will conclude with guidelines for material selection and for preventing corrosion problems.

Workshop VI: “Hg, HCl and Se Co-Removal with SO₃ Control” by Jim Jarvis (Savannah Room) This workshop will focus on the removal of mercury and HCl that occurs when SO₃ is controlled using the SBS Injection process. Test results include measurements from commercial SBS application, operating conditions that promote the removal of these species, and trends noted in the removal of other trace species such as selenium.

2:00–3:00 pm

Workshop VII: “FF Maintenance for Performance” by John R. Darrow, W.L. Gore & Associates (Scarborough 3) Filter media is the heart of the fabric filter. This workshop will cover how to take care of the filter media through routine inspection and maintenance practices.

Panel III: (until 3:30 pm) “High, Mid-Frequency & Standard TR O&M Experience” Chairman Gary Reinhold, RE Consulting Panelists: Paul Ford, Redkoh Industries; Colin Tonks, Alstom; Helmut Herder, NWL; Tom Delia, Siemens; Jason Horn, Stock Equipment; Dan Steinhaur, Stein Industries (Scarborough 1 & 2) This panel will be a candid discussion by a group of industry experts of O&M experiences with traditional ESP T/R sets, the newer high-frequency power supplies, as well as internationally used mid-frequency power supplies recently marketed in the U.S. Some hybrid applications of these technologies will also be discussed.

Workshops and Panels

Monday, July 14 continued

Workshop VIII: “Experience in Solving Hydrated Lime System O&M Issues” by Bryan Williams, TVA, Mark B. Free, Mississippi Lime Co., Eric Van Rens, Mississippi Lime Co. (Scarborough 4) TVA and Mississippi Lime (MLCo) conducted full scale tests on Paradise, KY Units 1-3 in 2006-2008. Results showed Hydrated Lime to be an effective reagent for reducing SO₃ emissions without increasing particulate emissions. Topics will touch on SO₃ mitigation results, NSPS/PSD impacts, injection geometry, reagent properties, material handling and their effect on application success.

Workshop IX: “Nine Years of Experience with Hg Control in RWE’s Plants” by Tony Licata, Babcock Power (Savannah Room) To facilitate efficient and cost-effective mercury control, RWE developed a sorbent process and injection technology using activated lignite HOK which is less expensive than activated carbon and is just as effective. HOK has been used in RWE plants since 1999 and has been used in a 2 x 400 MW coal-fired power plant in the United States since January, 2007.

4:00-5:00 pm

Workshop X: “Using Oscilloscopes to Predict ESP Performance” by Russ Ridgeway, AEP (Scarborough 3) The purpose of this workshop will be to learn how to troubleshoot your ESP controls using an oscilloscope. It is a tool you should never leave your office without.

Panel IV: (until 5:30 pm) “Scrubber Upgrades” Chairman: Gordon Maller, URS Panelists: Jerry Presley, Dominion; Mark Golightly, FirstEnergy; Melissa Allen, TVA; Greg Betenson, PacifiCorp; Greg Bielawski, Babcock & Wilcox; Tapan Mukherjee, Alstom (Scarborough 1 & 2) This panel will discuss upgrade and improvement projects of older FGD systems to improve performance and reliability. Both vendors who have experience performing scrubber upgrades and utility people who have completed upgrade projects will be represented. Design considerations and operating and performance data will be presented in the first half, followed by a question and answer session in the second half.

Workshop XI: “NH₃/SO₃ Control - How to Keep Your Air Heater and ESP Alive and Well in a Low NOx/Low SO₃ World” by Cal Lockert, Breen Energy, and Scott Thomas, Duke Energy (Scarborough 4) The presentation will discuss the inter-relationship between increased NH₃/Urea flow for NOx removal, SO₃ mitigation chemistry to remove Blue Plume effects, and ESP operation in the presence of this chemical cocktail. Special attention will be given to the design and performance of a new air heater sootblowing process developed and implemented by Belews Creek Generating Station.

Workshop XII: (until 5:30 pm) “Fuel Quality’s Effects on Air Pollution Control Devices” by Tony Widenman, DTE (Savannah Room) Fuel combustion and air emissions are tightly tied together. Without knowing fuel characteristics and understanding how these effect combustion, slagging & fouling deposition and subsequent emissions, informed engineering and operating decisions may not be made. The purpose of this tutorial is a give each attendee a basic understanding of fuel analysis, what each reported value means and its effect on operations and air emissions

Tuesday, July 15

8:00-9:00 am

Workshop XIII: “Impact of Combustion on Particulate Collection” by Bob Taylor, GE Energy (Scarborough 3) This session describes the correlation between combustion and the ability to effectively remove particulate from the flue gas. The objective is to provide a practical explanation for changes in particulate removal device efficiency and changes in process conditions.

Panel V: “SO₃ Mitigation - Overview” Chairman: Mark Golightly, FirstEnergy Panelists: Sterling Gray, URS; Ed Campobenedetto, Babcock & Wilcox; Keith Day, O’Brien & Gere (Scarborough 1 & 2) The SO₃ mitigation panel will include representatives of four leading technologies for controlling SO₃ emissions. This panel will offer a description of the technologies and provide a chance for the attendees to ask questions of the panel.

Workshop XIV: “New Approaches to Hg Control” by M. Brandon Looney, Southern Company (Scarborough 4) Under the vacated Clean Air Mercury Rule, most utilities had adopted a compliance strategy consisting of FGD Co-benefit and/or Activated Carbon Injection for mercury control. With the renewed possibility of a MACT emission standard, several issues regarding these technology choices must be addressed. This workshop will address how a MACT standard will affect these technologies, as well as cover some potential technology considerations and choices to address the challenges of a stricter regulatory standard.

Workshop XV: “Continuous Particulate Mass Monitors for Wet Stacks” by Craig Clapsaddle, MSI (Savannah Room) This workshop will present the commercially available monitors for particulate emission measurement in wet scrubber stacks. The workshop will discuss the issues needing to be addressed when a plant perform continuous particulate monitoring and how to resolve those issues. A question and answer period will be held at the end.

Workshops and Panels

Tuesday, July 15 continued

9:00–10:00 am

Workshop XVI: “ESP Diagnostics” by *John Knapik, GE Energy* (Scarborough 3) The purpose of this workshop is to provide 6 or 7 steps for the non-precipitator expert, in diagnosing a poorly performing electrostatic precipitator (ESP). Topics include: which meters tell the most, how to quickly know if an avc is working properly, power levels for each field of the ESP, running V-I curves without creating more opacity, understanding current density, etc. A lot of information will be covered in an easy to understand presentation.

Panel VI: “Mercury Sorbent Injection” *Chairman: Ralph Altman, EPRI* *Panelists: Jean Bustard, ADA-ES; Josef Heuter, Reinbraun Brennstoff GmbH; Rob Nebergall, Norit Americas; Nick Pollack, Calgon Carbon Corp.; John Buschmann, Alstom; Sid Nelson, Sorbent Technologies; Mark Berry, Southern Company* (Scarborough 1&2) Activated carbon injection (ACI) is generally accepted as the leading candidate for mercury control for coal fired boilers not equipped with an SO₂ scrubber. Although this technology is likely to be widely applied by the industry in the next few years, there are few plant engineers and operators that are familiar with the impacts of ACI on plant operation. Hence, a panel of experts has been assembled to discuss this issue at the APC Conference. The discussions will include all aspects of ACI technology, from design issues to balance of plant concerns. A question and answer period is included to ensure you have all your questions answered.

Workshop XVII: “WESP -Past, Present and Future of Wet Electrostatic Precipitators” by *Tim Mallory, Air Advantage* (Scarborough 4) The wet electrostatic precipitator has a long and relatively unknown history in the Air Pollution Control Industry. This workshop will briefly discuss the history of the WESP, current applications and a discussion of where the WESP will fit into the future of the Air Pollution Control Industry.

Workshop XVIII: “Indigo MAPS Technology” by *Rod Truce, Indigo Technologies, and Bob Crynack, Indigo Technologies* (Savannah Room) Indigo Technologies is introducing a new multi air pollutant control system to the U.S. It is designed to reduce NO_x, SO_x, Hg, and PM_{2.5} simultaneously. The system was operational in Poland on a 50 MW coal fired boiler for over 10 years. The technology will be described. Full scale performance in Poland and U.S. pilot test results will be presented. The target market for this product is for smaller (< 300 MW) boilers, where SCRs and FGDs cannot be economically justified or space is not available.

Treasure Hunt Drawing! 10:20am in Expo Hall

11:00 am–Noon

Workshop XIX: “Effects of Poor Air Heater Performance on the Backend” by *John Guffre, Paragon* (Scarborough 3) The performance of backend APC equipment (ESP, baghouses, scrubbers) is directly impacted by the temperature and the volume of the gases entering the device. Mechanical issues associated with the air preheater can cause up to a 20% increase in flow volume to the backend APC equipment, as well as additional gas temperature variations of + or – 20 degrees Fahrenheit. Examples will be given where inexpensive airheater repairs can substantially increase APC performance, including a 100 SCA increase in relative precipitator size.

Workshop XX: “Measurement of SO₃/H₂SO₄ in Industrial Flue Gases” by *Joe McCain, SRI* (Sloane Room) This session will cover the pros and cons of various methods for measuring SO₃/H₂SO₄ in flue gas streams. The methods covered will include EPA Method 8, the controlled condensation method, and the use of dew point meters.

Workshop XXI: “Protecting Scrubber Internals” by *Melissa Cook, TVA* (Scarborough 1 & 2) This workshop will explore alternatives available for protecting FGD interiors from aggressive environments. Options for protecting the absorber vessels, tanks and ducts will be discussed.

Workshop XXII: “Increasing Hg Removal Efficiency of Wet FGD” by *Philip Elliott, Evonik Energy Services* (Scarborough 4) Mercury removal with the use of combination of SCRs and FGDs are a popular method to control mercury, however, reemission of mercury in the scrubber is still a problem. Evonik Energy Services had tested and placed into operation a system that injects PAC prior to the absorber that reacts with the mercury and prevents the reemission of mercury out of the scrubber.

Workshop XXIII: “Flow and Emissions Testing” by *Rob Mudry, Airflow Sciences* (Savannah Room) This workshop discusses in detail testing methods for velocity, pressure, temperature, particulate, and gas species. EPA Test Methods 1 and 2 will be covered in detail, including standard and 3-d velocity testing plus stack RATA tests. Fan performance and air heater testing will also be reviewed (PTC 11 and 4.3). The discussion of gas species testing will cover aspects for NO_x, O₂, and CO measurement and their use for tuning Low NO_x burners and SCR AIGs. Also reviewed will be more customized testing to troubleshoot specific flow-related problems, such as air heater pluggage, LPA issues, ESP efficiency, fan or duct vibration, windbox balance, etc.

2008 APC/PCUG Conference Agenda

July 13 - Sunday: APC Round Table Pre-Conference at Hyatt Regency Savannah, GA

12:00 - 4:00	Registration (2nd Floor outside of Regency Ballroom)	
	WPCA Scrubber Training (Scarborough Room 1 & 2) - all attendees must pre-register	Scarborough Room 3
1:00 - 5:00	WPCA Wet Limestone Scrubber Training Scarborough Room 1	WPCA Dry Scrubbers and Fabric Filters Training Scarborough Room 2
5:45 - 9:30	Alstom SIR High Frequency Power Supply User Training by Georgia Power (1-5 pm)	
	NWLP Power Plus High Frequency Power Supply User Training by Georgia Power (1-5 pm)	

Conference Event - "Low Country Boil" Dinner at Fort Jackson - open to all attendees and their families
Transportation will be provided in front of Hyatt Hotel at 5:45-6:15

July 14 - Monday: APC Round Table & Expo at Hyatt Regency Savannah, GA

7:00-8:00	Registration (2nd Floor) & Continental Breakfast (Trustee Hall) / Expo opens at 9:00	
8:00-9:00	Welcome by RE / Safety Note by Brenda Fischer, GA Power / Keynote Speaker: Charles Huling, VP of Environmental Affairs, GA Power (Scarborough Room)	
9:00-9:30	Break (in Expo)	
9:30-10:30	Workshop I (Scarborough 3 Room)	Workshop II (Scarborough 4 Room)
10:30-11:00	Theory of High Frequency Power Supplies by Per-Ranstad, Alstom	Mist Eliminators: O&M by Ron Richard, RE Consulting
11:00-11:30	Workshop IV (Scarborough 3 Room)	Workshop V (Scarborough 4 Room)
11:30-12:30	ESP Control Fundamentals by Paul Ford, Redkoh Industries	Corrosion Issues in Scrubbers by Gordon Maller, URS
12:30-2:00	Workshop VII (Scarborough 3 Room)	Workshop VIII (Scarborough 4 Room)
2:00-3:00	FF Maintenance for Performance by John Darrow, W.L. Gore	Nine Years of Experience with Hg Control in RWE's Plants by Tony Licata, Babcock Power
3:00-3:30	Workshop X (Scarborough 3 Rm)	Workshop XI (Scarborough 4 Room)
3:30-4:00	Using Oscilloscopes to Predict ESP Performance by Russ Ridgeway, AEP	Fuel Quality's Effects on Air Pollution Control Devices by Tony Wideman, DTE
4:00-5:00	Workshop XV (Scarborough 3 Rm)	Workshop XII (Savannah Room)
5:00-5:30	High, Mid-Frequency & Standard TR O&M Experience Chairman: Gary Reinhold, RE Consulting / Panelists: Paul Ford, Redkoh Industries; Colin Tonks, Alstom; Helmut Herder, MWL; Tom Delta, Stemens; Jason Horn, Stock Equipment, Dan Steinhaur, Stein Industries	Workshop XIII (Savannah Room)
5:30-6:30	Scrubber Upgrades Chairman: Gordon Maller, URS / Panelists: Jerry Presley, Dominion; Mark Golithley, FE; Melissa Allen, TVA; Greg Betenson, PacifiCorp. Greg Bielawski, B&W; Tapan Mukherjee, Alstom	Workshop XIV (Savannah Room)
Reception (in Exhibition Hall for all attendees and their families)		

July 15 - Tuesday: APC Round Table & Expo at Hyatt Regency Savannah, GA

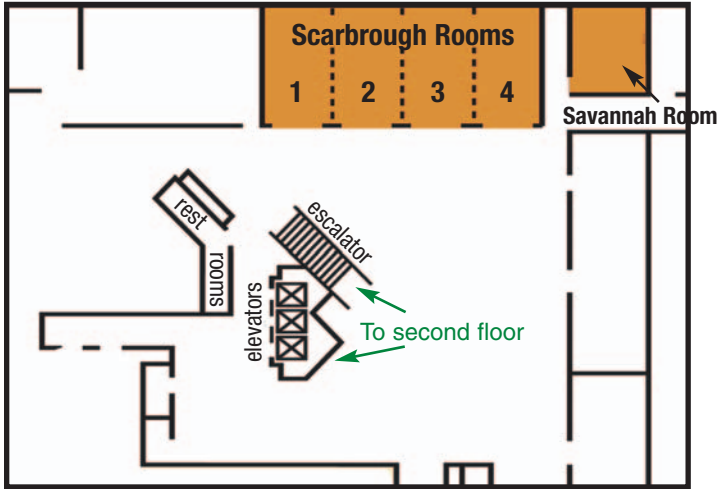
7:30-8:00	Registration & Continental Breakfast (in Expo)	
8:00-9:00	Workshop XIII (Scarborough 3 Rm)	Workshop XIV (Scarborough 4 Room)
9:00-10:00	Impact of Combustion on Particulate Collection by Bob Taylor, GE Energy	New Approaches to Hg Control by Brandon Looney, Southern Company
10:00-11:00	Workshop XVI (Scarborough 3 Room)	Workshop XVII (Scarborough 4 Room)
11:00-12:00	ESP Diagnostics by John Knapp, GE Energy	Indigo MAPS Technology by Bob Crynack, Indigo Technologies Rod Trice, Indigo Technologies
12:30	Workshop XIX (Scarborough 3 Rm)	Workshop XXIII (Savannah Room)
7:00-8:00	Effects of Poor Air Preheater Performance on the Backend by John Guiffre, Paragon	Flow & Emissions Testing by Rob Mundy, Airflow Sciences
7:00-12:00	Workshop XX (Savannah Room)	Workshop XXII (Scarborough 4 Room)
	Measurement of SO ₂ /H ₂ O ₂ in Industrial Flue Gases by Joe McCann, SRI	Increasing Hg Removal Efficiency of Wet FGD by Philip Elliott, Evonik Energy
	Workshop XXI (Scarborough 1-2 Room)	Workshop XXIV (Scarborough 4 Room)
	Protecting Scrubber Internals by Melissa Cook, TVA	Continuous Part. Mass Monitors for Wet Stacks by Craig Clapsaddle, MSI
	Break (in Expo).....(Treasure Hunt Visa drawing).....Expo closes at 11:00 AM	Workshop XXV (Savannah Room)
	Workshop XX (Savannah Room)	Workshop XXVI (Scarborough 4 Room)
	Mercury Sorbent Injection / Chairman: Ralph Altman, EPRI Panelists: Jean Bostard, ADA-ES; Josef Heuter, Reinbraun Bremststoff GmbH; Rob Nebergall, Norit Americas; Nick Pollack, Calgon Carbon Corp.; John Buschmann, Alstom; Sid Nelson, Sorbent Technologies; Mark Berry, Southern Company	Workshop XXVII (Scarborough 4 Room)
	Workshop XXVIII (Scarborough 4 Room)	Workshop XXVIII (Savannah Room)
	Workshop XXIX (Scarborough 4 Room)	Workshop XXIX (Savannah Room)
	Workshop XXX (Savannah Room)	Workshop XXX (Savannah Room)

July 16-17 - Wednesday - Thursday: PCUG (Pollution Control Users Group) Meeting at Hyatt Regency Savannah, GA

July 18 - Friday: PCUG (Pollution Control Users Group) Meeting at Hyatt Regency Savannah, GA

2008 Hyatt Regency Savannah Layout

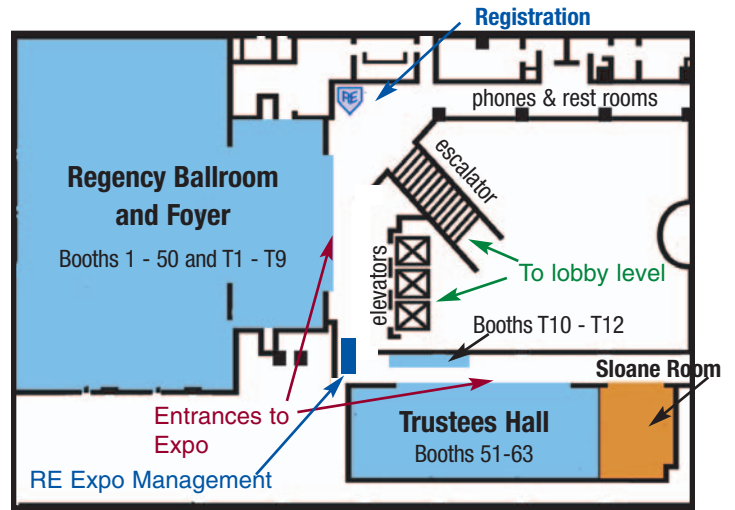
Lobby Level



Lobby level

Workshops and Panels in Scarbrough 1 thru 4 and the Savannah Room.

Second Floor



Second Floor

Workshops in Sloane Room. Expo in Regency Ballroom, Regency Foyer, Trustees Hall and outside Trustees Hall.

2008 Exhibitor List with Booth Numbers

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Reinhold Environmental Conference Staff

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Sasha-Maria Martin, Registration

Linda Licata, Expo Support

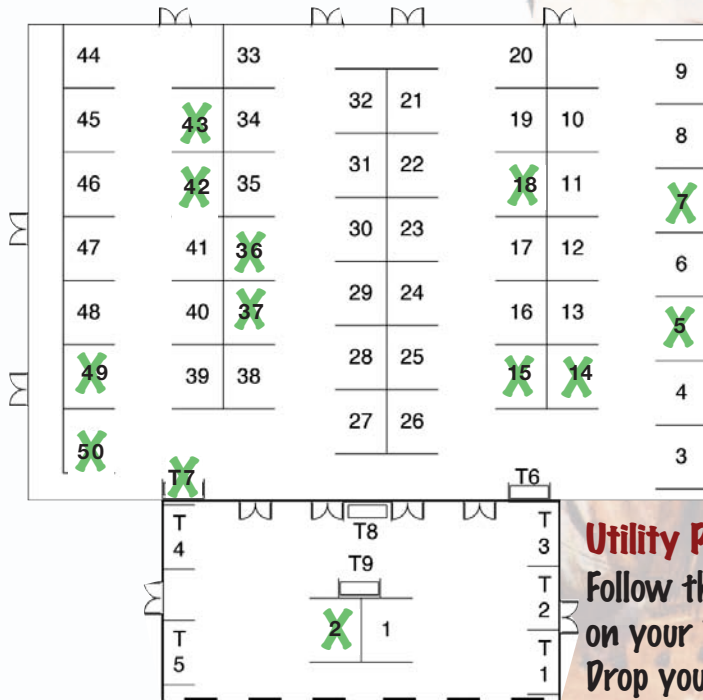
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Treasure Map!



Treasure Hunt Sponsors



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15 VISA Gift Cards

will be awarded!

- 1 @ \$500
- 4 @ \$300
- 3 @ \$200
- 7 @ \$100

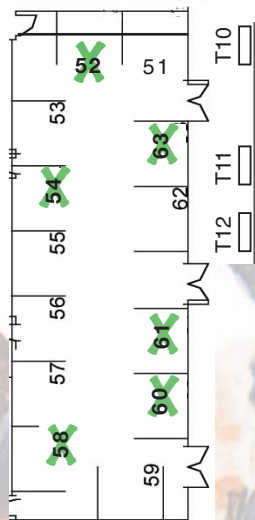
Utility People:

Follow the instructions on your Treasure Card. Drop your completed card into the bowl at the registration desk by 10:15am Tuesday.

Be Present to Win!

Drawing to be held at 10:20am Tuesday in the expo hall.

X Marks the Spot!



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2008 APC Exhibitors

ADA Environmental Solutions40

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ADA Environmental Solutions, a clean coal technology firm, is a leader in mercury emissions control and provides measurement services, compliance planning, and mercury control systems with performance guarantees. We also provide proprietary flue gas conditioning chemicals and combustion additives for improved ash collection, ESP performance, and slag fluxing in cyclone boilers. Additionally, the Company is implementing plans to produce and supply activated carbon sorbents to its utility customers.

Advatech61

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Advatech combines the strength of two world-class organizations--URS Corporation, a global engineering firm, and Mitsubishi Heavy Industries America (MHIA)--to bring the best FGD systems to the United States. With Advatech, you get not only the Double Contact Flow Scrubber (DCFS) technology from MHIA and the comprehensive engineering, procurement, and project implementation services of URS, but also the R&D, engineering experience, and corporate commitment from both companies.

Air Advantage, Inc.59

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Air Advantage, Inc. is a consulting engineering company specializing in aiding customers, manufacturers and consulting services with the engineering required to support an ever widening array of environmental options and issues.

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Since 1988, AirTek has been a leading provider of precipitator services. These services include field service engineering, consulting services, construction management, maintenance, new construction, major rebuilds, and the supply of spare parts. AirTek offers this full range of services, in addition to our own line of ESPs, to all users of air pollution control equipment.

Alstom Power.42 & 43

1409 Centerpoint Blvd.
Knoxville, TN 37932
Thomas J. Manayathara, Manager, Marketing
thomas.j.manayathara@power.alstom.com
Business: 865-560-1689 Fax: 865-560-1642
www.environment.power.alstom.com



Alstom is a world leader in supplying clean power solutions. The Alstom portfolio includes complete air quality control systems, equipment upgrades, component rebuilds, replacement parts, construction, commissioning and technical services for SCR systems, wet and dry FGD systems, wet and dry ESPs, high and low ratio fabric filter systems and integrated solutions for mercury control.

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5146G Commerce Ave.
Moorpark, CA 93021
Tom Shideler, President
sales@avcspecialists.com
Business: 805-531-8900 Fax: 805-531-8903
www.avcspecialists.com



A.V.C. Specialists designs and manufactures voltage control and rapping control systems featuring Modbus communication links with plant DCS. A.V.C. also supplies replacement and upgrade components for all precipitators. In addition to providing inspection and maintenance service, A.V.C. solves difficult rapping problems for hoppers, bins and SCR screen systems.

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Tony Licata, VP, Business Development
tlicata@babcockpower.com
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www.babcockpower.com



BABCOCK POWER INC., through its subsidiaries, is a leading worldwide supplier of technology, equipment and services for the Power Generation industry. We offer a complete set of environmental solutions including SCRs, flue gas desulfurization scrubbers, mercury removal systems and low NOx burners; heat exchangers, steam surface condensers, feedwater heaters, MSRs; HRSGs; and steam generators with associated fuel preparation and firings systems.

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Business: 330-860-1004 Fax: 330-860-2715
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The BABCOCK & WILCOX COMPANY is a world leader for Environmental Control Products, including SCRs, FGDs (Wet & Dry), Particulate Removal (Baghouses, Wet ESP, Dry ESP) and Ultra Low NOx Burners. The B&W Construction Company has installed more SCRs in the U.S. than any other erector. For more information, call 1-800-BABCOCK.

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Business: 888-599-0486 Fax 940-458-4122
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www.BreenES.com



Breen Energy Solutions is a provider of real-time, in-situ, continuous measurement technology for flue gas condensables such as Ammonium Bisulfate (AbS) and SO₃. Direct AbS measurement enables the end user to minimize Ammonia Slip and avoid Air Heater fouling within balanced impact on Heat Rate. Direct SO₃ measurement enables the end user to mitigate blue plume and back-end corrosion with lower chemical injection rates and balanced impact on Heat Rate.

Buell APC35

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twl@fkinc.com
Business: 717-274-7110 Fax: 717-274-7342
www.fkinc.com www.cecoenviro.com



Buell APC provides air pollution control systems and services for the power utility and industrial process industries. Products and services include custom electrostatic precipitators and baghouses, precipitator rebuilds and upgrades, precipitator conversion to pulse jet fabric filter, inspections, technical advisory services, engineering evaluations, and replacement parts for Buell and other OEM design precipitators.

Castell Interlocks, Inc.5

21 Kenton Lands Road
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mwatson@cepowersol.com
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www.cepowersol.com



CE Power Solutions specializes in providing engineering and technical services for the electrical industry. CE Power works with fossil-fueled generating plants and industrial facilities to provide solutions for TR sets, switchgear, circuit breakers, and power transformers, as well as provide system solutions facing power generation and distribution. CE Power provides field testing and maintenance services as well as repair and replacement options.

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www.chemicallime.com



Chemical Lime is a leading producer of calcium-based products in North America with 17 production facilities. Chemical Lime employs a team of engineers, geologists, scientists, and business leaders to constantly perfect applications for calcium-based products. Our Flue Gas Treatment (FGT) Solutions Group is a diverse team experienced in Acid Gas Control applications. For more information, contact Mike Schantz at 1-877-511-LIME.

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akephart@cleanair.com
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For over 35 years, CleanAir has been a global leader in stack testing, emissions monitoring, compliance planning, APC performance testing, sampling equipment, and instrument rental. Areas of expertise include flue gas analyses for Hg/SO₂/SO₃/NOx/NH₃/HCl and particulates, ash resistivity analysis and cooling tower drift emissions. Today we are assisting our Utility clients in providing mercury monitoring solutions, AIG tuning, real-time particulate measurements, GHG reporting and verification & more.

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Hanover, MD 21076
Michael Widico, VP Business Development
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Clyde Bergemann EEC is a leading supplier of fabric filters, ESPs, dry scrubbing & dry injection systems for the control of Mercury, Acid Gases & Particulate emissions. We offer a full line of associated OEM and aftermarket parts and maintenance services for these systems to the power generation, pulp & paper, waste-to-energy, rock products, metals & petrochemical industries. Clyde Bergemann EEC is a unit of the Clyde Bergemann Power Group, a world leading enterprise providing "Clean Energy Solutions" to the global energy market.

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E.ON Engineering Corp. provides services in the field of analytics and clean air technologies. Among others, these are SCR catalyst management, field-testing (for all gaseous components, aerosols and particles), FGD and SCR performance / acceptance tests, AIG tuning and combustion optimization. The development of all of our services is driven by the needs of our own fleet of >65,000MW.

EPSCO International, Inc.31

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hskescosco@msn.com
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www.espcointernational.com



EPSCO International, Inc. is a consulting firm specializing in economically solving air pollution control problems for coal-fired utilities, cement plants, and pulp & paper. They promote a 3-Phase approach to defining a problem before trying to solve it: Online Assessment, Offline Assessment, Analyses & Recommendations. EPSCO's staff of 20 consultants and associates have 20+ years of consulting experience on ESPs, FFs, FGD O & M, flue gas conditioning, Mercury control, and SCR Maintenance & Structural Rehab on 300+ successful projects.

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www.graycor.com



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Lenexa, KS 66214
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PennWell Corp.T7

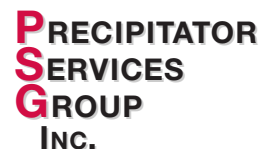
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PennWell is a leading facilitator of information exchange among industry decision makers and product manufacturers in the global power market. Industry magazines include Power Engineering and Power Engineering International. Conferences and exhibitions produced by PennWell include POWER-GEN International, COAL-GEN, COAL-GEN EUROPE, Renewable Energy World North America, POWER-GEN Europe, POWER-GEN Asia, POWER-GEN India and Central Asia, POWER-GEN Middle East and Russia Power.

Precipitator Services Group Inc.38 & 39

1625 Broad Street, P.O. Box 339
Elizabethton, TN 37644
Daniel Nidiffer, Vice President
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Business: 800-345-0484 Fax: 423-543-8737
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Offers complete manufacturing, maintenance, and construction services associated with electrostatic precipitators. PSG Inc. can provide total turnkey services for after-market and capital considerations. PSG's fabrication facility can manufacture collecting plates, rigid electrodes, rapping systems, and internal parts, as well as fabricated products such as hoppers, nozzles, ductwork, casing walls, roof and support steel.

RE Consulting58

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RE Consulting is a division of Reinhold Environmental Ltd., a corporation which has provided numerous services to the coal-burning utility industry since 1993. RE Consulting's current focus is to provide training via its state-of-the-art, on-line training manuals. Moreover, using its team of industry experts, RE Consulting provides customization support of its training manuals for specific plant configurations as well as engineering studies, on-site training, and O&M based trouble shooting and consulting.

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Redkoh is a leading supplier of ESP electrical controls for over 20 years. Our Transformer Rectifier Control, Rapper/Vibrator Control, & Data Acquisition and Control Systems are well respected in the industry. Literally thousands of controls are presently reliably operating worldwide. DataTest Industries, operating since 1971, has maintained a leadership position in the design and manufacture of Opacity monitoring equipment (both permanent & portable), as well as Oxygen, CO, and Combustion analyzers. DataTest also manufactures Triboelectric effect probes for use as emission level monitors & broken bag detectors.

Rema Tip Top N.A., Inc..46

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Madison, GA 30650
Mark Peavy, Product Manager Corrosion Protection Systems
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Since the inception of Sanders Engineering and Analytical Services (SEAS) in 1978, our staff of professional engineers, chemists, and biologists have been involved in many diverse environmental studies. Our clients include many of the major electric utility, chemical, pulp and paper, oil and gas production, and manufacturing companies in the southeast. SEAS specializes in all types of compliance testing, permitting and air quality modeling.

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