

# SPRING 2014 TRANSFORMERS COMMITTEE MEETING



February 13, 2014

#### Dear Committee Members and Guests:

You and your companion are cordially invited to attend the upcoming Spring 2014 m beeting of the IEEE/PES Transformers Committee, to be held March 23-27 in Savannah, Georgia. We consider this opportunity a distinct honor and privilege, and everyone at Efacec Power Transformers is delighted to be your host for this event.

Our meeting will be held at the Savannah Marriott Riverfront (100 General McIntosh Boulevard). Located in the heart of the historical district, the Marriott Riverfront allows you to step out the front door onto the streets to enjoy the sights—from the past to the present—in just a few steps.

<u>HOTEL INFORMATION</u>: The Marriott is currently sold out. There are two overflow hotels: the Hampton Inn Savannah and the Holiday Inn Express, both located on East Bay Street. The rate for both hotels is US\$159 per night, including free WiFi. Visit the Committee's website for reservation links. Or call (912)231-9700 for the Hampton Inn, (912)231-9000 for the Holiday Inn Express; mention Group Code IEE when making your reservation to receive the discounted rate. The cut-off date is February 28, or until the hotels are sold out.

<u>GETTING THERE</u>: The Savannah/Hilton Head International Airport is located approximately 25 minutes from downtown Savannah. The airport code is SAV. You can take a taxi to you hotel (approximately \$35 one way); there is also a shuttle service available (visit <u>www.kshuttle.com</u> for rates and reservations).

<u>REGISTRATION</u>: Register on-line at <u>www.transformerscommittee.org</u> for tours, social events and meeting registration. Register by February 28 to receive the \$50 early registration discount. The on-line registration system will be disabled on March 19 to print name badges and finalize counts. Note that the cost to register on-site is substantially higher than the advance registration price.

<u>WEATHER</u>: Weather can be unpredictable this time of year, but you can expect daytime highs to be in the upper 60s to lower 70s (mid to upper teens °C), with nighttime lows in the upper 40s (0 to 5°C). With the possibility of wild temperature swings from day to day, even being inside restaurants and other attractions may require long sleeves to be comfortable. Please keep this in mind when you are packing for your trip. Dress for the meeting is business casual.

<u>SATURDAY EARLY BIRD EVENT</u>: Dinner and a fun night of dueling piano entertainment at **Savannah Smiles Dueling Piano Bar**. See the flyer on the website for details and to register for this event.

**SUNDAY EVENING RECEPTION**: Efacec Power Transformers is proud to host this renewal of old friendships and formation of new ones in the **Marriott's Atrium**. A cash bar and TONS of fabulous food will be provided, along with a contemporary trio for your listening enjoyment. Indicate your intention to attend this event during the on-line registration process.

<u>TUESDAY AWARDS LUNCHEON</u>: Join fellow meeting attendees in the **Marriott's Ballroom** to recognize the hard work of your peers.

<u>WEDNESDAY EVENING RECEPTION</u>: We invite you to enjoy a **Cruise on the Savannah River.** During this two-hour riverboat cruise, you will enjoy live musical entertainment on all three levels and a buffet dinner of Southern delights while you learn what makes this the fourth busiest port in the US along with other fun facts about the city. See the flyer on the website for more details.

<u>SPOUSE/COMPANION TOURS</u>: Join us on Monday to tour historic Savannah, with its rich history, old world charm and beautiful homes, followed by an afternoon walking tour of the infamous Bonaventure Cemetery. On Tuesday, we are off to Tybee Island to visit the historic Tybee Lighthouse and Museum, with a stop for a delectable lunch at Uncle Bubba's (Paula Deen's brother). The day will wrap up with a peek into the life of Paula Deen. See the flyer on the website for more details.

**TECHNICAL TOURS**: Efacec Power Transformers will host a guided tour of its transformer manufacturing facility in Rincon, Georgia on Sunday morning. And on Thursday afternoon, join us for a tour of the Gulfstream Aerospace Corporation (note that a passport will be required to register for this event). See the flyer on the website for more details.

**SEEING SAVANNAH**: Known as the "Hostess City of the South," Savannah has something for everyone. Rich history, wonderful views, fantastic shopping, delicious food—Savannah has it all! A good starting point to plan your trip is <a href="www.visitsavannah.com">www.visitsavannah.com</a>. And links to several helpful websites are also available on the Committee website.

<u>ADDITIONAL MEETING INFORMATION</u>: Along with this invitation letter, additional meeting information can be downloaded from the Committee's website at <u>www.transformerscommittee.org</u>:

- Meeting Registration Form. Use this as a guide to review the fees for each activity before you begin
  the on-line registration process. Instructions for individual event registrations and payment can be
  found on this page.
- Detailed Meeting Schedule and General Session Agenda. If any noteworthy changes are made, an
  updated schedule will be posted on the Committee's website a few days prior to the meeting.
- Other informational flyers, including those for the Tuesday Luncheon, the Saturday Early Bird Event, the Wednesday Social Event, Spouse/Companion Tours, Technical Tours and Technical Presentations.

We look forward to seeing you at the Spring 2014 meeting. And we know you will enjoy "Springtime in the South"!

Best regards,
Jorge & Jenny Guerra
Spring 2014 Meeting Hosts
Efacec Power Transformers
www.efacecusa.com



#### **IEEE/PES TRANSFORMERS COMMITTEE**

Spring 2014 Meeting; Savannah, Georgia USA -- Meeting Registration Summary and Fees --

Register on-line with credit card at www.transformerscommittee.org ("Next Meeting" page).

Contact the Committee at transformers@ieee.org if an alternate form of payment is necessary.

Each individual must register for meeting (with registration fee) to attend Sunday Reception or any social event or tour.

Print a receipt at the end of the registration process. Paper receipts will NOT be provided at the meeting.

Refund provided only if the request <u>is received</u> by Wednesday, March 19. Valid once confirmation email is received. US\$25.00 service charge for a refund of entire registration; or US\$10 for a partial refund.

US Tax ID No. 13-1656633, Canadian Business No. 12563 4188, Euro Tax Registration No. EU826000081

| REGISTRATION FEES all fees in US\$ dollars all fees stated are "per person"  | On or Before<br>Feb 28                           | After Feb 28,<br>on or before<br>March 19     | On-site, at Meeting     |
|--|--|---|-------------------------|
| MEETING REGISTRATION   |  |   |                         |
| Attendee, IEEE member (will be verified with IEEE)   | \$250  | \$300   | \$400                   |
| Attendee, not IEEE member  | \$275  | \$325   | \$425                   |
| Attendee, IEEE Life or Committee Emeritus (will be verified)   | \$75   | \$125   | \$225                   |
| Spouse or Companion, and children age 12 and over  | \$100  | \$150   | \$250                   |
| Attendee Registration Fee Includes: Entry into Meeting Area, Sunday R Spouse/Companion Registration Fee Includes: Sunday Reception, 4 bit  | eception, coffee bre<br>reakfasts (M, T, W,      | eaks, 4 breakfasts (<br>Th)                   | (M, T, W, Th)           |
| A Companion is a "significant other", boy/girlfriend, who is attending for technical meetings, etc.). Spouses/companions & children (age 12 and above fees - to attend any tour or social event. | non-commercial re-<br>over) must be regis        | asons, i.e., not atte<br>stered for the meeti | nding the<br>ing - with |
| RECEPTION & LUNCHEONS  |  |   |                         |
| Sunday Evening Welcome Reception cost included in meeting registration indicate your plan to attend the reception when you register  |  |   | tration fee             |
| Monday Standards Development Luncheon all SC,WG,TF leaders are encouraged to attend  | no charge,<br>but advance registration necessary |   |                         |
| Tuesday Awards Luncheon indicate a meal selection: beef, chicken, or vegetarian  | \$25   | \$25  | \$25                    |
| SOCIAL EVENTS (see flyers for details)   |  |   |                         |
| Saturday Evening Early-Bird Event: Savannah Smiles ** dinner, music & fun!; approx 8 min walk from hotel   | \$25   | \$25  |                         |
| Wednesday Social: Dinner Cruise on Savannah River Queen buffet dinner; no reason to choose a meal selection  | \$65   | \$65  | \$65                    |
| ** Attendance limited. Register early!   |  |   |                         |
| SPOUSE/COMPANION TOURS (see flyers for details)  |  |   |                         |
| Monday: Historic Savannah & Bonaventure, includes lunch **   | \$75   | \$75  |                         |
| Tuesday: Tybee Island & Paula Deen Tour, includes lunch **   | \$75   | \$75  |                         |
| ** Attendance limited. Register early!   |  |   |                         |
| TECHNICAL TOURS (see flyers for details)   |  |   |                         |
| Sunday Morning: Efacec Transformer Facility ***  | \$0  | \$0   |                         |
| Thursday Afternoon: Gulfstream Aerospace small fee for bus transportation  | \$20   | \$20  |                         |
| *** Due to space limitations, this tour initially limited to only Committee Members and Active Participants.   |  |   |                         |

#### **IEEE/PES TRANSFORMERS COMMITTEE**

www.transformerscommittee.org Spring 2014 Meeting; March 23-27 Hosted by Efacec Power Transformers Savannah Marriott Riverfront; Savannah, Georgia USA

**NOTES:** See Page 4 for a key to abbreviations.

| <u>DATE/TIME</u><br>Friday, March 21 | <u>ACTIVITY</u>   | SUB-<br>COM   | ACTIVITY<br>CHAIR      | ROOM<br>CAP/ARR/AV        | MEETING<br>ROOM    |  |
|--------------------------------------|---|---|------------------------|---------------------------|--------------------|--|
| 8:00 am - 5:00 pm >                  | IEEE/IEC WG Wind Transf. P60076-16  | PCS   | D. Buckmaster          | 20 US                     | Academy            |  |
| Saturday, March 22                   |   |   |                        |                           |                    |  |
|                                      | No Meeting Registration   |   |                        |                           |                    |  |
| > 8:00 am - 12:00 pm >               | IEEE/IEC WG Wind Transf. P60076-16  | PCS   | D. Buckmaster          | 20 US                     | Academy            |  |
| 7:00 pm until ???                    | Indicate your desire to attend when regi  | <u>Early Bird Event</u> : Dinner, music and fun at "Savannah Smiles Dueling Pianos Saloon" Indicate your desire to attend when registering on-line for the Committee Meeting Meet in hotel lobby at 6:45 pm. Savannah Smiles is ~8 minute walk from the hotel. See flyer for details. |                        |                           |                    |  |
| Sunday, March 23                     |   |   |                        |                           |                    |  |
| 9:00 am - 1:30 pm                    | Technical Tour: Efacec Transformer Facility Space is limited; initially only Committee Members and Active Participants Buses depart Marriott Hotel at 9:00 am. Return by 1:30 pm Catered lunch at the factory. Each breakfast before departing in the morning For more details, contact Erin Carpenter at +1.912.754.5435 or <erin.carpenter@efacec.com>.</erin.carpenter@efacec.com> |   |                        |                           |                    |  |
| 1:00 pm - <u>5:30 pm</u>             | Meeting Registration  |   |                        |                           | Ballroom Foyer     |  |
| 2:00 pm - 5:30 pm                    | Administrative SC Closed meeting, by invitation only  | Admin.  | D. Platts              | 28 US<br>(w/snack buffet) | Oglethorpe AB      |  |
| 3:00 pm - 5:30 pm                    | NEMA Transformers Closed meeting, by invitation only  | ++  | C. Drexler             | 24 US<br>(w/beverages)    | Plaza              |  |
| 6:00 pm - 8:00 pm                    | Welcome Reception   |   |                        | 450 Reception             | Atrium & Riverwalk |  |
| Monday, March 24                     | Monday Breaks Sponsored by JSHP   | Transfor  | mer **                 |                           |                    |  |
| 7:00 am - <u>4:00 pm</u>             | Meeting Registration  |   |                        |                           | Ballroom Foyer     |  |
| 7:00 am - 6:00 pm                    | Internet Cafe'  |   |                        | 12 BD                     | Mercer             |  |
| <u>7:00 am</u> - 7:50 am             | Newcomers Orientation Breakfast Meeting; arrive early! Newcomers & Guests are encouraged t  | o attend!   | S. Antosz              | 60 CL<br>(with buffet)    | Savannah E         |  |
| 7:00 am - 7:50 am                    | Distribution SC Leaders Coordination Closed breakfast meeting, by invitation  | only  | S. Shull               | 18 CONF<br>(with buffet)  | Academy            |  |
| 7:00 am - 8:00 am                    | Breakfast - Attendees (no spouses/compa   | anions plea   | se)                    | 300 RT (9/tbl)            | Savannah A         |  |
| 8:00 am - 9:30 am                    | Breakfast - Spouses/Companions (no me   | eting attend  | dees please)           | 96 RT (8/tbl)             | Atrium & Riverwalk |  |
| 9:15 am - 3:30 pm                    | Spouses/Companions Tour: Historic Dist Advance registration required. Buses d   |   |                        |                           |                    |  |
| 8:00 am - 9:15 am >                  | Opening Session All attendees are encouraged to attend See separate document for meeting ag Attendance recorded as eligibility for Co   |   | D. Platts<br>embership | 250 CL S1<br>250 TH       | Savannah BC        |  |
| 9:15 am - 9:30 am                    | Break (beverages only)  |   |                        | Ballroom Foyer            |                    |  |

<sup>\*\*</sup> Contact Joe Watson (joe\_watson@ieee.org) if you are interested in sponsoring a coffee-break at a future meeting.

| DATE/TIME                              | ACTIVITY   | SUB-<br>COM  | ACTIVITY<br>CHAIR           | ROOM<br><u>CAP/ARR/AV</u>           | MEETING<br>ROOM             |
|--|--|--------------|-----------------------------|-------------------------------------|-----------------------------|
| Monday, March 24 (c                    | ontinued)  |              |                             |                                     |                             |
| 9:30 am - 10:45 am                     | WG 3-ph UG Dist. Transf. C57.12.24   | UTNP         | G. Termini                  | 60 MX                               | Plaza                       |
| 9:30 am - 10:45 am                     | TF Winding Temp. Indicators  | IL           | P. McClure                  | 80 MX                               | Oglethorpe AB (2nd floor)   |
| 9:30 am - 10:45 am                     | WG External Dielectric Clearances  | DiTests      | E. Davis                    | 100 MX S2                           | Savannah D                  |
| 9:30 am - 10:45 am                     | TF Consolidation of Oil Guides   | IF           | T. Prevost                  | 100 MX S2 (add 40 TH)               | Savannah E                  |
| 9:30 am - 10:45 am                     | WG Tertiary/Stabiliz. Windings PC57.158  | PCS          | E. Betancourt               | 200 MX S3                           | Savannah B                  |
| 9:30 am - 10:45 am                     | WG Failure Analysis & Report. C57.125  | Power        | W. Binder                   | 200 MX S3                           | Savannah C                  |
| 10:45 am - 11:00 am                    | Break (beverages only)   |              |                             | Ballroom Foyer                      |                             |
| 11:00 am - 12:15 pm                    | TBD  |              |                             | 60 MX                               | Plaza                       |
| 11:00 am - 12:15 pm                    | WG Moisture in Insulation PC57.162   | IL           | T. Prevost                  | 80 MX                               | Oglethorpe AB               |
| 11:00 am - 12:15 pm                    | WG Overhead Distr. Transf. C57.12.20   | Dist         | A. Traut                    | 100 MX S2                           | Savannah D                  |
| 11:00 am - 12:15 pm                    | WG PD Acoustic Detection C57.127   | DiTests      | D. Gross                    | 100 MX S2                           | Savannah E                  |
| 11:00 am - 12:15 pm                    | WG PCS Rev. to Test Code C57.12.90   | PCS          | M. Perkins                  | 200 MX S3                           | Savannah B                  |
| 11:00 am - 12:15 pm                    | WG Installation of Power Transf. C57.93  | Power        | M. Lau                      | 200 MX S3                           | Savannah C                  |
| 12:15 pm - 1:30 pm                     | Lunch Meeting: Standards Development F   | Review       | B. Bartley                  | 280 RT (8/tbl)                      | Savannah A                  |
|  | Everyone is welcome to attend. All SC/\ Doors actually open ~12:00 pm. Come of the complimentary meal with advance regis welcome to attend. All SC/\ Complimentary meal with advance regis welcome to attend. All SC/\ Complimentary meal with advance regis welcome to attend. All SC/\ Complimentary meal with advance regis welcome to attend. All SC/\ Complimentary meal with advance regis welcome to attend. All SC/\ Complimentary meal with advance regis welcome to attend. All SC/\ Complimentary meal with advance regis welcome to attend. All SC/\ Complimentary meal with advance regis welcome to attend. All SC/\ Complimentary meal with advance regis welcome to attend. All SC/\ Complimentary meal with advance regis welcome to attend. All SC/\ Complimentary meal with advance regis welcome to attend to a second | early, get a | good seat, and s            | tart eating.<br>dmission verified a |                             |
| 1:45 pm 2:00 pm                        | TBD  |              |                             | CO MY                               | Diama                       |
| 1:45 pm - 3:00 pm                      |  | D            | T Haldway                   | 60 MX                               | Plaza                       |
| 1:45 pm - 3:00 pm<br>1:45 pm - 3:00 pm | WG Dry-Type Gen. Require. C57.12.01<br>WG 1-ph Padmount Dist. Transformers<br>C57.12.38 (12.21 & 12.25)  | Dry<br>Dist  | T. Holdway<br>A. Ghafourian | 80 MX<br>100 MX S2                  | Oglethorpe AB<br>Savannah D |
| 1:45 pm - 3:00 pm                      | WG Less-Flammable Hydrocarbon Insulating Liquid Guide C57.121  | IF           | D. Sundin                   | 100 MX S2                           | Savannah E                  |
| 1:45 pm - 3:00 pm                      | TF Audible Sound Revision to Test Code   | PCS          | R. Girgis                   | 200 MX S3                           | Savannah B                  |
| 1:45 pm - 3:00 pm                      | WG Tank Rupture & Mitigation PC57.156  | Power        | P. Zhao                     | 200 MX S3                           | Savannah C                  |
| 3:00 pm - 3:15 am                      | Break (beverages only and treats)  |              |                             | Ballroom Foyer                      |                             |
| 3:15 pm - 4:30 pm                      | SC HVDC Converter Transformers and<br>Smoothing Reactors   | HVDC         | M. Sharp                    | 60 MX                               | Plaza                       |
| 3:15 pm - 4:30 pm                      | WG Milli-amp Current Transf. C57.13.7  | IT           | H. Alton                    | 80 MX                               | Oglethorpe AB               |
| 3:15 pm - 4:30 pm                      | WG 3-ph Padmount Distribution<br>Transformers C57.12.34  | Dist         | R. Stahara                  | 100 MX S2                           | Savannah D                  |
| 3:15 pm - 4:30 pm                      | WG Natural Ester-Based Fluids C57.147  | IF           | P. McShane                  | 100 MX S2                           | Savannah E                  |
| 3:15 pm - 4:30 pm                      | WG Dielectric Freq. Response PC57.161  | DiTest       | A. Naderian                 | 200 MX S3                           | Savannah B                  |
| 3:15 pm - 4:30 pm                      | TBD  |              |                             | 200 MX S3                           | Savannah C                  |
| 4:30 pm - 4:45 pm                      | Break (beverages)  |              |                             | Ballroom Foyer                      |                             |
| 4:45 pm - 6:00 pm                      | WG Dry-Type O&M Guide C57.94   | Dry          | D. Stankes                  | 60 MX                               | Plaza                       |
| 4:45 pm - 6:00 pm                      | WG PD in Bushings & PT/CTs PC57.160  | DiTests      | T. Hochanh                  | 80 MX                               | Oglethorpe AB               |
| 4:45 pm - 6:00 pm                      | WG Step-Voltage Regulators C57.15  | Dist         | C. Colopy                   | 100 MX S2                           | Savannah D                  |
| 4:45 pm - 6:00 pm                      | WG Oil Accept & Maint. Guide C57.106   | IF           | B. Rasor                    | 100 MX S2                           | Savannah E                  |
| 4:45 pm - 6:00 pm                      | WG PCS Revisions to C57.12.00  | PCS          | S. Snyder                   | 200 MX S3                           | Savannah B                  |
| 4:45 pm - 6:00 pm                      | TBD  |              |                             | 200 MX S3                           | Savannah C                  |
| 6:00 pm- 10:00 pm                      | No Technical Tour. No other evening ever   | nts planned  | i.                          |                                     |                             |

| DATE/TIME                 | ACTIVITY  | SUB-<br>COM | ACTIVITY<br>CHAIR | ROOM<br>CAP/ARR/AV     | MEETING<br>ROOM    |
|---------------------------|---|-------------|-------------------|------------------------|--------------------|
| Tuesday, March 25         | - Tuesday Breaks Sponsored by Baror   | n USA, Inc  | C. **             |                        |                    |
| 7:00 am - <u>12:00 pm</u> | Meeting Registration  |             |                   |                        | Ballroom Foyer     |
| 7:00 am - 6:00 pm         | Internet Cafe'  |             |                   | 12 BD                  | Mercer             |
| 7:00 am - 8:00 am         | Breakfast - Attendees (no spouses/compan  | ions pleas  | e)                | 300 RT (9/tbl)         | Savannah A         |
| 8:00 am - 9:30 am         | Breakfast - Spouses/Companions (no meet   | ing attende | ees please)       | 96 RT (8/tbl)          | Atrium & Riverwalk |
| <u>7:00 am</u> - 7:50 am  | EL&P Delegation (end-users only please) Breakfast Meeting; arrive early               |             | J. Murphy         | 60 CL<br>(with buffet) | Savannah E         |
| 9:15 am - 3:30 pm         | <u>Spouses/Companions Tour</u> : Paula Deen T Advance registration required. Buses de | •           | •                 |                        | •                  |
| 8:00 am - 9:15 am         | WG Req. for Instrument Transf. C57.13   | IT          | R. McTaggart      | 60 MX                  | Plaza              |
| 8:00 am - 9:15 am         | WG Oil Reclamation Guide PC57.637   | IF          | J. Thompson       | 80 MX                  | Oglethorpe AB      |
| 8:00 am - 9:15 am         | WG Enclosure Integrity C57.12.28,<br>C57.12.29, C57.12.31, C57.12.32                  | Dist        | R. Olen           | 100 MX S2              | Savannah D         |
| 8:00 am - 9:15 am         | TBD   |             |                   | 100 MX S2              | Savannah E         |
| 8:00 am - 9:15 am         | TF Geomagnetic Disturbances (NEW)   | Admin       | J. Verner         | 200 MX S3              | Savannah B         |
| 8:00 am - 9:15 am         | WG Functional Life Tests, De-energized Tap Changers (DETC) PC57.157                   | Power       | P. Hopkinson      | 200 MX S3              | Savannah C         |
| 9:15 am - 9:30 am         | Break (beverages only)  |             |                   | Ballroom Foyer         |                    |
|                           | WG Dist. Transf. Bar Coding C57.12.35   | Dist        | Document is co    | mplete and publis      | hed.               |
|                           | TF Committee History  | Mtgs        | Will meet at the  | Fall Meeting.          |                    |
| 9:30 am - 10:45 am        | WG 1-Ph Submersible Transformers C57.12.23 (NEW)                                      | UTNP        | A. Traut          | 60 MX                  | Plaza              |
| 9:30 am - 10:45 am        | WG Station Service Voltage Transformers   | IT          | D. Wallace        | 80 MX                  | Oglethorpe AB      |
| 9:30 am - 10:45 am        | TBD   |             |                   | 100 MX S2              | Savannah D         |
| 9:30 am - 10:45 am        | WG Std Require for Bushings C57.19.01   | Bush        | S. Zhang          | 100 MX S2              | Savannah E         |
| 9:30 am - 10:45 am        | WG DGA Natural Ester Fluids PC57.155  | IF          | P. Boman          | 200 MX S3              | Savannah B         |
| > 9:30 am - 10:45 am      | IEEE/IEC WG Wind Transf. P60076-16 Will also meet Fri-Sat 21-22 March                 | PCS         | D. Buckmaster     | 200 MX S3              | Savannah C         |
| 10:45 am - 11:00 am       | Break (beverages only)  |             |                   | Ballroom Foyer         |                    |
| 11:00 am - 12:15 pm       | WG Liquid-immersed Secondary<br>Network Transformers C57.12.40                        | UTNP        | B. Klaponski      | 60 MX                  | Plaza              |
| 11:00 am - 12:15 pm       | WG Phase Shifting Transformers<br>IEEE/IEC 60076-57-1202                              | Power       | R. Ahuja          | 80 MX                  | Oglethorpe AB      |
| 11:00 am - 12:15 pm       | WG Impulse Tests C57.138 (Distribution)   | DiTests     | J. Crotty         | 100 MX S2              | Savannah D         |
| 11:00 am - 12:15 pm       | WG GSU Bushings PC57.19.04  | Bush        | C. Arpino         | 100 MX S2              | Savannah E         |
| 11:00 am - 12:15 pm       | WG Guide for DGA in LTCs C57.139  | IF          | D. Wallach        | 200 MX S3              | Savannah B         |
| 11:00 am - 12:15 pm       | WG Loss Evaluation Guide C57.120  | PCS         | A. Traut          | 200 MX S3              | Savannah C         |
| 12:15 pm - 1:30 pm        | Awards Luncheon   |             | B. Chiu           | 320 RT (8/tbl)         | Savannah A         |
|                           | Doors open ~12:00 pm. Come early, get Advance registration is necessary. Pape         |             |                   |                        | at the door.       |
|                           | TF Transf. Efficiency & Loss Evaluation   | Dist        | Work is complet   | te. DOE has issue      | ed its final rule. |
| 1:45 pm - 3:00 pm         | TBD   |             |                   | 60 MX                  | Plaza              |
| 1:45 pm - 3:00 pm         | TF Fluid Terms Normalization  | Stds        | P. McShane        | 80 MX                  | Oglethorpe AB      |
| 1:45 pm - 3:00 pm         | WG Distr. Substation Transf. C57.12.36  | Dist        | J. Murphy         | 100 MX S2              | Savannah D         |
| 1:45 pm - 3:00 pm         | WG Revision to Low Frequency Tests  | DiTests     | B. Poulin         | 100 MX S2              | Savannah E         |
| 1:45 pm - 3:00 pm         | WG DGA Factory Temperature Rise<br>Tests PC57.130                                     | IF          | J. Thompson       | 200 MX S3              | Savannah B         |
| 1:45 pm - 3:00 pm         | WG DPV Grid Transformers PC57.159   | PCS         | H. Shertukde      | 200 MX S3              | Savannah C         |
| 3:00 pm - 3:15 pm         | Break (beverages and Pretzels!)   |             |                   | Ballroom Foyer         |                    |

<sup>\*\*</sup> Contact Joe Watson (joe\_watson@ieee.org) if you are interested in sponsoring a coffee-break at a future meeting.

#### **KEY**

Note: A PC projector will be furnished in each meeting room. Arrive early to ensure that equipment operates/syncs correctly.

Overhead projectors are available from the hotel with advance notice.

> -- activity continued into another session / from another session

++ -- not a Transformers Committee activity TBD = "To Be Determined"

FC = flip chart; S1 = sound (special set-up)

S2 = stand mic in front only; S3 = one stand mic in front & stand mic(s) at mid-room

BD -- boardroom

US -- U-shape table

RT -- multiple roundtables

CL -- classroom seating (w/head table for 2)

TH -- theater seating (w/head table for 2)

MX -- mix classroom & theater (w/head table)

| DATE/TIME                     | ACTIVITY   | SUB-<br>COM | ACTIVITY<br><u>CHAIR</u> | ROOM<br>CAP/ARR/AV  | MEETING<br><u>ROOM</u> |
|-------------------------------|--|-------------|--------------------------|---------------------|------------------------|
| Tuesday, March 25 (continued) |  |             |                          |                     |                        |
| 3:15 pm - 4:30 pm             | WG Dry-Type Test Code C57.12.91  | Dry         | D. Foster                | 60 MX               | Plaza                  |
| 3:15 pm - 4:30 pm             | TF Switching Transients Induced by<br>Transf/Breaker Interaction C57.142 | PCS         | J. McBride               | 80 MX               | Oglethorpe AB          |
| 3:15 pm - 4:30 pm             | WG Test Data Reporting C57.12.37   | Dist        | J. Crotty                | 100 MX S2           | Savannah D             |
| 3:15 pm - 4:30 pm             | WG Application of High-Temp Insulation<br>Materials, IEEE P-1276         | IL          | M. Franchek              | 100 MX S2           | Savannah E             |
| 3:15 pm - 4:30 pm             | WG Revision to Gas Guide C57.104   | IF          | R. Ladroga               | 200 MX S3           | Savannah B             |
| 3:15 pm - 4:30 pm             | TBD  |             |                          | 200 MX S3           | Savannah C             |
| 4:30 pm - 4:45 pm             | Break (beverages only)   |             |                          | Ballroom Foyer      |                        |
|                               | TF Moisture in Oil   | Æ           | Scope of TF me           | oved to Moisture in | Insulation WG.         |
| 4:45 pm - 6:00 pm             | TBD  |             |                          | 60 MX               | Plaza                  |
| 4:45 pm - 6:00 pm             | WG Neutral Grounding Devices PC57.32                                     | PCS         | S. Kennedy               | 80 MX               | Oglethorpe AB          |
| 4:45 pm - 6:00 pm             | WG Tank Pressure Coordinat. C57.12.39                                    | Dist        | C. Gaytan                | 100 MX S2           | Savannah D             |
| 4:45 pm - 6:00 pm             | TBD  |             |                          | 100 MX S2           | Savannah E             |
| 4:45 pm - 6:00 pm             | WG Transf. Paralleling Guide PC57.153                                    | Power       | T. Jauch                 | 200 MX S3           | Savannah B             |
| 4:45 pm - 6:00 pm             | WG Revisions to Impulse Test Sections of C57.12.00 and C57.12.90         | DiTests     | P. Riffon                | 200 MX S3           | Savannah C             |
| 6:30 pm- 10:00 pm             | No Technical Tour. No other evening ever                                 | nts planned | i.                       |                     |                        |

#### Wednesday, March 26 -- Wednesday Breaks Sponsored by Weidmann Diagnostic Services \*\*\*

|                     | No Meeting Registration, No Technical Tours, No Spouse/Companion Tour                                 |              |               |                        |                    |
|---------------------|---|--------------|---------------|------------------------|--------------------|
| 7:00 am - 6:00 pm   | Internet Cafe'  |              |               | 12 BD                  | Mercer             |
| 7:00 am - 8:00 am   | Breakfast - Attendees (no spouses/companions please)  |              |               | 300 RT (9/tbl)         | Savannah A         |
| 8:00 am - 9:30 am   | Breakfast - Spouses/Companions (no m  | eeting atter | ndees please) | 88 RT (8/tbl)          | Atrium & Riverwalk |
| 7:00 am - 7:50 am   | SC Meetings Planning  | Mtgs         | G. Anderson   | 60 CL<br>(with buffet) | Savannah D         |
| 7:00 am - 8:30 am   | IEC TC-14 Technical Advisory Group Breakfast Meeting; arrive early All interested individuals welcome | ++           | P. Hopkinson  | 60 CL<br>(with buffet) | Savannah E         |
| 8:00 am - 9:15 am   | SC Instrument Transformers  | IT           | R. McTaggart  | 100 MX S2 (add 40 TH)  | Savannah D         |
| 8:00 am - 9:15 am   | SC Insulation Life  | IL           | B. Forsyth    | 350 MX S3              | Savannah BC        |
| 9:15 am - 9:30 am   | Break (beverages only)  |              |               | Ballroom Foyer         |                    |
| 9:30 am - 10:45 am  | SC Bushings   | Bush         | P. Zhao       | 100 MX S2              | Savannah D         |
| 9:30 am - 10:45 am  | SC Distribution Transformers  | Dist         | S. Shull      | 350 MX S3              | Savannah BC        |
| 10:45 am - 11:00 am | Break (beverages only)  |              |               | Ballroom Foyer         |                    |

<sup>\*\*\*</sup> Contact Joe Watson (joe\_watson@ieee.org) if you are interested in sponsoring a coffee-break at a future meeting.

|                     |  | SUB-       | ACTIVITY      | ROOM           | MEETING     |
|---------------------|--|------------|---------------|----------------|-------------|
| DATE/TIME           | <u>ACTIVITY</u>  | <u>COM</u> | <u>CHAIR</u>  | CAP/ARR/AV     | ROOM        |
| Wednesday, March 2  | 26 (continued)   |            |               |                |             |
| 11:00 am - 12:15 pm | SC UG Transf. & Network Protectors   | UTNP       | C. Niemann    | 100 MX S2      | Savannah D  |
| 11:00 am - 12:15 pm | SC Dielectric Tests  | DiTests    | M. Franchek   | 350 MX S3      | Savannah BC |
| 12:15 pm - 1:30 pm  | Lunch (on your own)  |            |               |                |             |
| 1:30 pm - 2:45 pm   | SC Dry Type  | Dry        | C. Johnson    | 100 MX S2      | Savannah D  |
| 1:30 pm - 2:45 pm   | SC Power Transformers  | Power      | J. Watson     | 350 MX S3      | Savannah BC |
| 2:45 pm - 3:00 pm   | Break (beverages and treats)   |            |               | Ballroom Foyer |             |
| 3:00 pm - 4:15 pm   | SC Insulating Fluids   | IF         | D. Wallach    | 100 MX S2      | Savannah D  |
| 3:00 pm - 4:15 pm   | SC Performance Characteristics   | PCS        | E. teNyenhuis | 350 MX S3      | Savannah BC |
| 4:15 pm - 4:30 pm   | Break (beverages only)   |            |               | Ballroom Foyer |             |
| 4:30 pm - 5:30 pm   | SC Standards   | Stds       | B. Bartley    | 350 MX S3      | Savannah BC |
| 6:00 pm - 9:00 pm   | 9:00 pm <u>Dinner Social</u> : Dinner Cruise aboard the "Savannah River Queen".  The boat is docked directly behind the hotel. Advance registration is necessary.  Boarding and cocktails 6:00 to 7:00 pm. Embark at 7:00 pm. Return approx 9:00 pm. |            |               |                |             |

- -- Paper tickets will NOT be provided. Admission will be verified with a registration list as you board the boat.
  -- It will be cool temperature in the evening, so dress appropriately.

#### Thursday, March 27

|                       | No Meeting Registration, No Spouses/Com  | panions T              | ours, No Internet  | Cafe'               |                    |
|-----------------------|--|------------------------|--|---------------------|--------------------|
| 7:00 am - 8:00 am     | Breakfast - Attendees (no spouses/companions please)   |                        |  | 315 RT (9/tbl)      | Savannah A         |
| 8:00 am - 9:30 am     | Breakfast - Spouses/Companions (no meet  | ing attend             | dees please)   | 80 RT (8/tbl)       | Atrium & Riverwalk |
| 8:00 am - 9:15 am     | Technical Presentation #1: "Switching Transients",<br>by B. Degeneff, A. Rocha, and others.<br>Sponsored by Perform. Characteristics SC. See flyer on website.   |                        |  | 250 CL S1<br>200 TH | Savannah BC        |
| 9:15 am - 9:30 am     | Break (beverages only)   |                        |  | Ballroom Foyer      |                    |
| 9:30 am - 10:45 am    | Technical Presentation #2: "Review of C57.143 Guide for Monitoring Power Transformers", by C. Beauchemin, J. Benach, D. Chu, T. Pink, and B. Sparling. Sponsored by Power Transformers SC. See flyer on website  |                        |  | 250 CL S1<br>200 TH | Savannah BC        |
| 10:45 am - 11:00 am   | Break (beverages only)   |                        |  | Ballroom Foyer      |                    |
| > 11:00 am - 12:00 pm | Closing Session All attendees are encouraged to attend See separate document for meeting ager  | ıda                    | D. Platts  | 250 CL S1<br>200 TH | Savannah BC        |
|                       | Lunch (on your own)  |                        |  |                     |                    |
| > 1:00 pm - 5:00 pm   | WG Phase Shifting Transformers IEEE/IEC 60076-57-1202 Continued from 11:00 am Tuesday  | Power                  | R. Ahuja   | 20 US               | Savannah E         |
| 1:30 pm - 4:00 pm     | Technical Tour: Gulfstream Aerospace Corp Space is limited; so register early! Due to security restrictions, a passport is Buses depart Marriott at 1:30 am. Return Small fee for cost of bus transportation For more details, contact Erin Carpenter at the component of the contact and the contact are set of the contact are set of the contact and the contact are set of the contact and the contact are set of the contact are set of the contact are set of the contact and the contact are set of the contact and the contact are set of the contact | necessar<br>to hotel a | at approx 4:00 pm<br>.754.5435 or <erin< td=""><td></td><td>,</td></erin<> |                     | ,                  |

#### Friday, March 28

No Transformer Committee Meetings, No Internet Cafe', No Social Events or Tours.

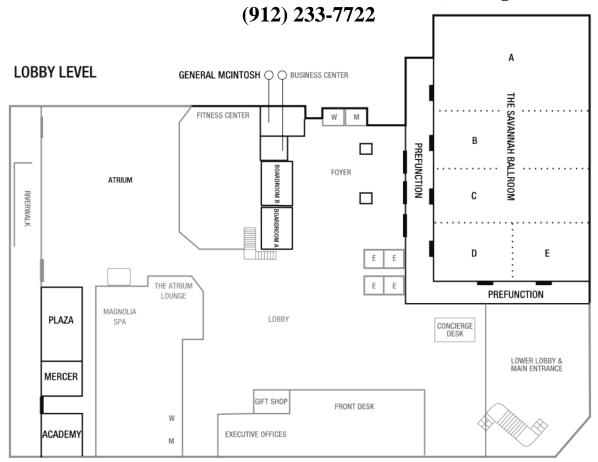
#### **FUTURE COMMITTEE MEETINGS**

Fall 2014 - October 19-23; Washington DC Metro Area, USA. Hosted by Pepco Spring 2015 - Dates to be determined; USA location to be determined

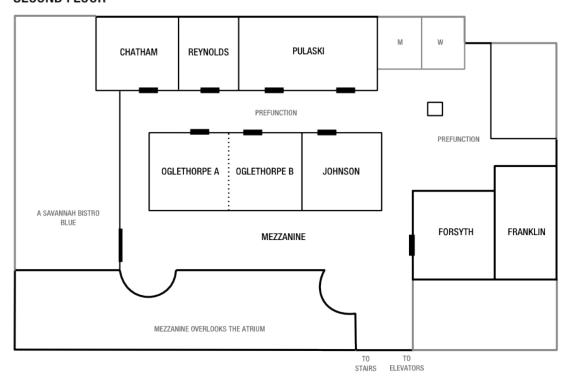
<sup>\*\*\*</sup> Contact Tom Prevost (tprevost@ieee.org) if you are interested in making a technical presentation at a future meeting.

### **Savannah Marriott Riverfront**

100 General McIntosh Boulevard; Savannah, Georgia 31401



#### SECOND FLOOR



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#### **IEEE/PES TRANSFORMERS COMMITTEE**

Spring 2014 Meeting; Savannah, Georgia USA Agenda - General Session

Chair: Don Platts Vice Chair: Stephen Antosz Secretary: Sue McNelly

Treasurer: Greg Anderson Awards Chair/Past Chair: Bill Chiu Standards Coordinator: Bill Bartley

| Mond   |                     | n 24; 8:00 am - 9:15 am  |                       |
|--------|---------------------|--|-----------------------|
| (roste | s circulat          | ed and attendance recorded as eligibility for Committee membership | p)                    |
| 1.     | Welcon              | ne and Announcements   | Don Platts            |
| 2.     | Approv              | al of Agenda   | Don Platts            |
| 3.     | Approv              | al of Minutes from Fall 2013 Meeting                               | Don Platts            |
| 4.     | Chair's             | Report   | Don Platts            |
| 5.     | Vice Ch             | nair's Report  | Stephen Antosz        |
| 6.     | Secreta             | ary's Report   | Sue McNelly           |
| 7.     | Treasu              | rer's Report   | Greg Anderson         |
| 8.     | Report              | from Administrative Subcommittee Meeting                           | Don Platts            |
| 9.     | Standa              | rds Report   | Bill Bartley          |
| 10.    | Editor's            | Report   | Sanjib Som            |
| 11.    | Reports             | s from Liaison Representatives                                     |                       |
|        | 11.1.               | Stds Coordinating Committee, SCC No. 4 (Electrical Insulation)     | Paulette Payne Powell |
|        | 11.2.               | Standards Coordinating Committee, SCC No. 18 (NFPA/NEC)            |                       |
|        | 11.3.               | IEC TC-14 Technical Advisor to USNC                                | •                     |
|        | 11.4.               | CIGRE  | Raj Ahuja             |
| 12.    | Hot Top             | pics for the Upcoming Week   | Subcommittee Chairs   |
| 13.    | New Bu              | usiness & Wrap-up  |                       |
|        | 13.1.               | Member ballot on WG P&P  | Don Platts            |
|        | ng Sess<br>day, Mar | ion<br><u>ch 27; 11:00 am - 12:00 pm</u>                           |                       |
| 1.     | Chair's             | Remarks and Announcements  | Don Platts            |
| 2.     | Meeting             | gs Planning Subcommittee   | Greg Anderson         |
| 3.     | Reports             | s from Technical Subcommittees (decisions made during the week)    |                       |
|        | 3.1                 |  |                       |
|        | 3.2                 |  |                       |
|        | 3.3                 | , , , , , , , , , , , , , , , , , , ,                              |                       |
|        | 3.4                 |  |                       |
|        | 3.5                 |  |                       |
|        | 3.6                 |  | •                     |
|        | 3.7                 |  |                       |
|        | 3.8                 | S .  |                       |
|        | 3.9                 |  | •                     |
|        | 3.1<br>3.1          |  | _                     |
| 1      | _                   |  |                       |
| 4.     | Additio             | nal Report from Standards Subcommittee (issues from the week)      | DIII Dartiey          |

Additional New Business (continued from Monday) and Wrap-up ...... Don Platts

5.



#### IEEE/PES Transformers Committee Spring 2014 Meeting Savannah, Georgia



### Transformer Interaction with Switching of Vacuum and SF6 Breakers

— Technical Presentation — Thursday, March 27

Presented by Bob Degeneff and Angélica Rocha

#### **Abstract**

The following topics will be covered:

- Short overview of the transients introduced by breakers onto transformers
- Historical background of how switching impulse testing in IEEE standards occurred
- Modern day breakers and the changes introduced to switching for transformers
- Overview of CIGRE document on switching transients

#### **Learning Objective**

Presentation will increase awareness of the possible interactions between breakers and transformers.

#### **Learning Outcomes**

As a result of attending this technical presentation, members will gain an understanding of the following:

- Interaction between transformers and breakers
- In what types of switching environments might a transformer be placed and the transients the transformer might encounter
- Need to specify and design transformers to mitigate switching transients

#### Presenters' Biographies

**Dr. Robert Degeneff** is the president of Utility Systems Technologies, Inc. which builds electronic voltage regulators and power quality mitigation equipment while providing consulting to the utility industry. Prior to assuming his role at UST, Dr. Degeneff worked as a professor of electric power engineering at Rensselaer Polytechnic Institute (RPI) in Troy, NY for 17 years and was involved in research into the design and performance of utility and industrial power apparatus. Dr. Degeneff was also employed with General Electric for 16 years, initially as a senior development engineer with GE's Large Power Transformer Department and then as a manager in various positions of increasing responsibility in the power transformer business, HVDC systems and utility planning area.

Dr. Degeneff received his Bachelor of Engineering from Kettering Institute and his master's and PhD in engineering from RPI. He is a PE in New York State; a member of Tau Beta Pi, Eta Kappa Nu and Sigma Xi; an achiever of IEEE Fellow grade and 2008 recipient of the IEEE Herman Halperin Electric Transmission and Distribution Award "for innovative and pioneering contributions to the computation and understanding of transient voltages in transformers and systems." Dr. Degeneff has also published over seven dozen papers (two IEEE prize papers), chapters in five books, one complete book and holds eight patents.

Angélica da Costa Oliveira Rocha received her Bachelor of Science in Electrical Engineering from Federal University of Juiz de Fora, Brazil in 1980. Shortly after earning her degree, she joined Companhia Energética de Minas Gerais. At CEMIG, she worked in the Transmission Operation Planning Department as the senior engineer in charge of system operation transient studies, such as restoration after blackout, transmission line and substation equipment switching and system transient disturbance analysis. Since October 2013, she has worked as an independent consultant with a focus on transient interaction between systems and equipment.

Angélica has been a CIGRE member since 1996 and has contributed to different CIGRE study committees, including A2 Transformers, C4 System Technical Performance and A3 High Voltage Equipment. She also served as the convener of both the current CIGRE joint working group A2/C4.39 Electrical Transient Interaction between Transformers and the Power System and a CIGRE Brazil working group dealing with this phenomenon. Her scientific activities include publication of several papers in technical journals and conference proceedings, recently focusing on the different aspects of transient interaction between transformers and the power system.



# IEEE/PES Transformers Committee Spring 2014 Meeting Savannah, Georgia



## Guide for Application of Monitoring Equipment to Liquid-Immersed Transformers and Components C57.143

Technical Presentation —
 Thursday, March 27

Presented by Claude Beauchemin, Jeff Benach, Donald Chu, Tony Pink and Brian Sparling

#### **Abstract**

The tutorial will cover five topics:

- Overview of issues that led to the development of this guide, including a review of the scope and purpose
- Review of the need for surveillance of transformers and components
- Synopsis of monitored parameters
- Monitoring systems and components
- Discussion of a cost / benefit analysis

Donald Chu, Consolidated Edison, opens the tutorial with a discussion on the motivating elements that drove the need for a monitoring guide.

Jeff Benach, Weidmann, then presents an overview of the transformer component failure mechanisms and corresponding measurement signals. He will cover Table 1 in the guide which lists main transformer components, failure mechanisms for those components and the measured signals associated with these failure mechanisms.

Claude Beauchemin, TJ/H2b, follows with an explanation of the various parameters that can be monitored.

Tony Pink, Dynamic Ratings, next discusses monitoring systems and equipment, including sensors, instrumentation and communication.

Brian Sparling, Dynamic Ratings, ends with a presentation on the subject of performing a cost / benefit analysis. While determining cost is relatively straightforward, the guide presents concepts for quantifying the monitoring benefits.

#### **Learning Objectives**

This presentation will help attendees justify, specify, design and implement the use of monitoring systems.

#### **Learning Outcomes**

As a result of attending this technical presentation, members will gain an understanding of the following:

- · "What, Why and How" of monitoring
- Failure mechanisms and associated signals that can be monitored
- Cost / Benefit tools to provide a quantitative evaluation that can be used to assess when and where monitoring is justified
- Content and application of the C57.143 guide

#### Presenters' Biographies

**Claude Beauchemin** graduated from Université de Montréal in chemistry in 1976. He worked for GE Canada (formerly Syprotec) for 30 years, where he specialized in the development and application of on-line monitoring devices of physico-chemical parameters of power transformers. In 2011, Claude became the director of technical development for TJH2b Analytical Services. He is a member of the IEEE Transformers Committee, CIGRE, IEC, CSC and the Ordre Des Chimistes du Québec.

**Jeff Benach**, director of technology for Weidmann Diagnostic Solutions, graduated from the Ohio Institute of Technology in 1982 with a BS in electronics engineering technology. He also earned an MBA in technology management from the University of Phoenix in 2003. Jeff has 32 years of industry experience, 25 years in the power industry. He is a Senior Member of the IEEE and an active member of the Transformers Committee.

**Donald Chu** is manager of the Substation Equipment Engineering Section of Con Edison Company of New York. With over 30 years of engineering and R&D experience in distribution and substation equipment, he is responsible for the development, design, engineering, construction, failure analysis and maintenance support for all major electrical equipment in transmission and area substations. Donald received his BSEE degree in 1975 and MSEE degree in 1976, both from Cornell University, New York, NY. He is a registered Professional Engineer in New York State and an active member of IEEE, EEI, CEATI and EPRI. He was the chairman of the Transformers Committee's working group that developed the new Guide for Application of Monitoring Equipment to Liquid-Immersed Transformers and Components C57.143 as well as an active member of several other working groups and subcommittees.

**Tony Pink** is the general manager and chief operating officer for Dynamic Ratings, Inc. Tony founded Dynamic Ratings' North American operations in 2002, managing the business through both organic growth and acquisitions. Prior to his current position, he worked for Waukesha Electric Systems' service group as the general manager. Tony has an electrical engineering degree from Milwaukee School of Engineering and an MBA from Marquette. Most recently, he served as secretary for the Transformers Committee's working group that developed the new Guide for Application of Monitoring Equipment to Liquid-Immersed Transformers and Components C57.143.

**Brian Sparling**, regional manager for Dynamic Ratings, Inc., has over 20 years of experience in the field of power and distribution transformers. He has been involved in all aspects of monitoring and diagnostics of power transformers for the last 20 years, authoring and co-authoring more than 18 technical papers on various relative topics. Brian is a Senior Member of IEEE and has worked on many guides and standards with the Transformers Committee, Canadian Electricity Association and CIGRE Study Committee A2 Transformers.



### Early Bird Event Saturday, March 22, 2014



Savannah Smiles

For those of you arriving in Savannah on Saturday, we invite you to join us for the early bird social event. Come experience "the most fun you'll have in Savannah" at Savannah Smiles—a unique dueling pianos saloon.





of your favorite songs then challenge the talented musicians to play them at this all-request saloon. Just write the name of the song on a napkin and get ready to sing along!

The fun begins at 7:00 PM. Dinner will be served and each person will receive two drink tickets. A cash bar will also be available.

Savannah Smiles is located at 314 Williamson Street, within walking distance of the Savannah Marriott Riverfront hotel. Or you can catch a ride on one of the Pedi-Cabs that are always available on River Street.

#### "This is not your daddy's piano bar!"

- Join the fun at Savannah's own all request Rock n' Roll Dueling Pianos Saloon.
- Experience a night of explosive fun as our talented performers belt-out your all-time favorite tunes.
- Sing, clap & stomp along to your requests.
- Audience participation is a must as our staff performs throughout the night.
- "Buck Off" drinks and appetizers all week during Happy Hour.
- Our kitchen is open late.

## \*\*\*\* VOTED BEST OVERALL BAR FOR 2002 VOTED BEST NEW BAR FOR 2001

21 AND OVER



#### Dinner Menu

Pizza (various toppings)

Egg rolls

Mixed green salad with choice of dressing

Pretzel dogs

Meat and veggie sub sandwiches

Non-alcoholic beverages

Full bar, with a full range of spirits!



Advance registration required. Register on-line when you register for the meeting.





# Technical Tours Sunday, March 23, 2014 Efacec Power Transformers



# Thursday, March 27, 2014 Gulfstream Aerospace Corporation

### **Efacec Power Transformers**

Efacec Power Transformers will host a brunch and tour of their state-of-the-art transformer manufacturing facility on Sunday, March 23. After four full years of production, this facility has manufactured some of the most complex transformers in the company's history. View our processes, from manufacturing through testing and shipping. Space is limited; initially, only Committee Members and Active Participants (and their spouses/companions).

#### **Itinerary for Sunday, March 23**

| 8:50 am: | Board bus    |
|----------|--------------|
| 9:00 am: | Depart hotel |

9:30 am: Arrive Efacec facility

10:00 am: Welcome to Efacec/Begin tour

11:15 am: Brunch is served!

12:30 pm: Board bus for return to hotel1:00 pm: Arrive at hotel (approximate)

#### Brunch Menu for Sunday, March 23

Chicken and waffles

Smoked ham and beef brisket sliders

Mashed potato bar

Cobb salad and Harvest spinach salad

Cheese & fruit tray

Assorted Danish pastries Coffee, iced tea, juices

### **Gulfstream Aerospace Corporation**

On Thursday afternoon, tour the Gulfstream Aerospace facility. Gulfstream designs, develops, manufactures, markets, services and supports the world's most technologically advanced business jets. NOTE: Due to the sensitive nature of their work, Gulfstream requires you to provide a passport to be cleared for entrance into their facility. Send a scanned copy of your passport to Erin Carpenter (erin.carpenter@efacec.com) NO LATER THAN MARCH 17. Space is limited, so register early.

### **Itinerary for Thursday, March 27**

1:25 pm: Board bus1:30 pm: Depart hotel

2:00 pm: Arrive Gulfstream facility

3:30 pm: Board bus for return to hotel (via Savannah/Hilton Head airport)

3:45 pm: Arrive Savannah/Hilton Head airport (approximate)

4:15 pm: Arrive at hotel (approximate)

For questions about either of these tours, please contact Erin Carpenter at +1.912.754.5435 or via email at erin.carpenter@efacec.com.





# Spouse/Companion Tour Monday, March 24, 2014



# Historic Savannah Experience — Victorian District Bonaventure Cemetery

The experience begins with a tour through historic Savannah, home to stately Southern architecture and distinctive park-like squares, including a stop at one of Savannah's Historic House Museums for a look into the lives of some of the city's wealthy cotton merchants. The tour continues with a visit to the Cathedral of St. John the Baptist which is often compared to some of the beautiful churches in Europe. <a href="http://www.savannahcathedral.org/">http://www.savannahcathedral.org/</a>





Lunch will be served at the Pirates House Restaurant. Located on one of the most historic spots in Georgia, this restaurant has been welcoming visitors to Savannah with a bounty of delicious food since 1753. Buffet style lunch includes Southern-fried chicken, BBQ pulled pork, baked tilapia, macaroni & cheese, mashed potatoes & gravy, salad with ranch or balsamic vinaigrette dressing, mixed vegetables, freshly baked biscuits, assorted desserts, iced tea and coffee.\*\* <a href="http://thepirateshouse.com/">http://thepirateshouse.com/</a>

The afternoon will include a drive through the Victorian District, Savannah's first suburb onto Ardsley Park, home to large Savannah mansions. Then the bus stops at Bonaventure Cemetery. Formerly a 600 acre rural estate on the banks of the Intracoastal Waterway, it is now the resting place for Savannah's famous son, singer/songwriter, Johnny Mercer. The cemetery became famous when it was featured in the 1994 novel *Midnight in the Garden of Good and Evil* by John Berendt and then the movie, directed by Clint Eastwood, based on the book. http://www.bonaventurehistorical.org/



#### <u>Itinerary</u>

9:15 am: Depart hotel for the Historic Savannah Experience via minibus\*

11:30 am: Group arrives at the Pirate's House for lunch

1:00 pm: Group departs the Pirate's House and continues touring

2:15 pm: Group arrival at Bonaventure Cemetery 3:15 pm: Group departs Bonaventure Cemetery

3:30 pm: Return to hotel (approximate time)

\*Please note that minibuses <u>not</u> equipped with restrooms will be the means of transportation due to the uniqueness of Savannah streets; restroom stops ARE built into the day's agenda.

\*\*Please advise us of any special dietary needs when registering.





# Spouse/Companion Tour Tuesday, March 25, 2014 Tybee Island & Paula Deen Tour



The day begins with a tour of Tybee Island. Ordered in 1732 by General James Oglethorpe, Governor of the 13th colony, the Tybee Island Light Station has been guiding mariners' safe entrance into the Savannah River for over 270 years. The Tybee Island Light House is one of America's most intact, having all of its historic support buildings on its five-acre site. Rebuilt several times, the current light station displays its 1916 day mark with 178 stairs and a First Order Fresnel lens (nine feet tall). <a href="https://www.tybeelighthouse.org/">http://www.tybeelighthouse.org/</a>





Lunch will be served at Uncle Bubba's (Paula Deen's brother's restaurant), where you'll enjoy a buffet menu featuring a low country boil (shell-on shrimp, smoked sausage, new potatoes and corn-on-the-cob, prepared together and topped with Old Bay), grilled chicken, garden salad with choice of dressing, Savannah red rice, macaroni 'n cheese, green beans, dessert, iced tea and coffee.\*\* <a href="http://www.unclebubbas.com">http://www.unclebubbas.com</a>

The afternoon begins as we take a peek into the life of a famous southern chef, Paula Deen. Visit a few of the shops that she frequented, and still showcases, on her way to establishing herself as one of America's favorite celebrities and cooking icons. The tour will take guests to the Bethesda Boys Home where she and her husband, Mike, were married along with additional stops as we make our way back into the Historic District. Your Paula Deen tour will include a few surprises, which is sure to give your group an appetite for more of the "Good Ole South".



#### **Itinerary**

9:15 am: Group departs for Tybee Island via minibus\*

9:45 am: Group arrival at the Tybee Island Light House Complex

11:00 am: Group departs Tybee Island for Uncle Bubba's

11:20 am: Group arrives at Uncle Bubba's for lunch

12:30 pm: Group departs and begins the Paula Deen tour

3:30 pm: Group returns to hotel

\*Please note that minibuses <u>not</u> equipped with restrooms will be the means of transportation due to the uniqueness of Savannah streets; restroom stops ARE built into the day's agenda.

\*\*Please advise us of any special dietary needs when registering.





## **Evening Dinner Social Wednesday, March 26, 2014**



Riverboat Cruise —





Join your fellow meeting attendees for a relaxing cruise down the Savannah River. You'll step right out the back door of the Savannah Marriott Riverfront hotel and board the Savannah River Queen. Once on board, you'll have an opportunity to enjoy a cocktail (cash bar), a sumptuous dinner and beautiful scenery as you sail down the Savannah River.

The Savannah River Queen, decorated in the traditional red, white and blue riverboat colors, will help transport you back to a time when elegance and relaxation were the order of the day. Featuring three decks with a bar and live music on each, you will enjoy some of Savannah's best local musicians.

We will wrap up the evening with a Portuguese tradition – a port wine toast, in a souvenir glass.

Advance registration required. Register on-line when you register for the meeting.

#### Itinerary

6:00 pm: Begin boarding from the rear entrance of the hotel

6:45 pm: Final boarding call

7:00 pm: Set sail for 2 hour cruise 7:15 pm: Dinner buffet opens

9:00 pm: Return to hotel and begin disembarking

#### **Dinner Menu**

Assorted salads and relish tray

Carving station: beef tenderloin and bourbon-peach glazed pork loin

Buffet: low country crab cakes, Savannah shrimp and grits,

boneless breast of chicken with a lemon pepper artichoke cream

sauce and Pasta ala Riverboat

Vegetables: scalloped potatoes, asparagus and squash casserole

Warm yeast rolls with butter

Water, iced tea, coffee and soft drinks

Choice of one of the Riverboat signature desserts



