

# Southwind

VOLUME 18 ISSUE 3

3<sup>rd</sup> QUARTER 1999



Association of  
Electric Motor Repair Shops  
for Co-operative  
Self-Improvement

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## From the Desk of Brenda Cole

### *Can you believe it is time once again for our annual Fall Conference?*

Where do the days go?

Jim Snow and Kenneth Randall, along with all their committee members, have quite a full program planned for this year's attendees of the 61<sup>st</sup> Annual Fall Conference being held in Raleigh, NC. And what a perfect time to visit Raleigh. The State Fair is a "main event" for this area and from what I hear – this is no ordinary State Fair. I have seen the brochures and each and every day from October 15 – 24, there are many attractions, shows, and big name entertainment. You may want to consider coming a few days early to catch all the fair has to offer. If you can't work that in, we are planning some free time plus transportation to the fair site. Keep an eye out for that State Fair brochure I will be sending your way.

Martin and Myra Rigsbee have quite a treat planned for the golfers. You will be teeing off on one of the most elite golf courses in the state of North Carolina – The Governor's Club.

Many thanks to Garrett Wolters for organizing our Tennis Tournament once again. We will be playing right at the Embassy Suites, so come on out on Thursday morning and root for your favorite player.

**I think everyone will enjoy the festivities planned for the Hospitality/Exhibit Room. In addition to the many companies exhibiting their products and all the food and drinks one can consume, we will be offering dance lessons (Saturday night will be a big night in Raleigh!) and on Friday night, we have Casino Night planned. So bring your lucky "whatever" and enjoy a night of casino magic.**

The program is full of interesting and informative topics. In addition to our customary "business" program and "spouse" program, Jim and Kenneth have put together an interesting concept on Saturday morning that will put us all together for a very important seminar on "RELATIONSHIPS." I have personally seen the demo tape for Dr. Wayne Sotile and wife Mary and found them to be both entertaining and enlightening. I urge each of you to attend this segment of the Fall Conference.

Getting back to the "big night in Raleigh" – the Final Banquet will be one to remember. Since this is the "FINAL" Final Banquet for this century (I guess...I thought the next century started with 2001) the committee thought it would be appropriate to have music from all the various eras of the 20<sup>th</sup> Century. To add even more fun to the evening, please feel free to dress in your favorite era (Example: Roaring 20s) or as your favorite person (Example: Fred Eclair) from this century. Of course, the customary Final Banquet dress is welcome also. Friends, food, music, and dance will be the order of the evening and at midnight, we will bring down the curtain on the **61<sup>st</sup> Annual Fall Conference** and the 20<sup>th</sup> Century! Hope you will join us.

# Southeastern Chapter – 61<sup>st</sup> Annual Fall Conference

## Raleigh, NC \* October 21 - 23

### REGISTRATION INFORMATION

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#### SCHEDULE

#### Wednesday

After 3:00 PM Early Arrivals Hotel check in  
 3:00 - 5:00PM Registration  
 6:45 PM Board Meeting (*Officers & Directors Only*)

#### Thursday

9:45 AM Golf Tournament  
 10:00 AM Tennis Tournament  
 10:00 – 5:00 PM Registration  
 4:00 - 6:00 PM Exhibit Hall Open  
 6:00 – 8:00 PM President’s Reception  
 8:00–11:00 PM Exhibit Hall Open

#### Friday

7:00 – 9:00 PM Breakfast  
 8:30 PM **Men’s Program** (*Cameron & Reynolds*)  
 8:35 PM Job Costing  
 (Don Lammers, Vaughens Publishing)  
 9:20 PM Marketing, Total Value  
 (Jerry Peerbolte, Baldor Electric)  
 10:00 AM Coffee/Drink Break  
 10:15 AM Southeastern Chapter Training Initiative  
 (David Horton, Darby Electric)  
 11:05 AM Guided Tour Through the Web  
 12:00 NOON Board Buses Lobby  
 12:15 PM Busses depart for Advanced Energy &  
 NC State School of Textiles  
 (Lunch served at Advanced Energy)  
 2:30 PM Buses return to Hotel  
 2:30 PM Return to Hotel

#### Continuation of

#### Friday

**8:30 AM Ladies Program** (*Biltmore & Hope*)  
 8:35 AM Time for Me, OPM  
 (Organizing, Prioritizing, & Managing)  
 (Pete Penning, FGM & Associates)  
 9:20 AM Sights and Delights,  
 An Adventure into the World Wide Web  
 10:15 AM Board Buses - Lobby  
 10:30 AM Outing and Excursion  
 Historic Sights and Shopping  
 (*As weather permits*)

#### Men and Ladies

4:00 – 6:00 PM Exhibit/Hospitality Ballroom Opens  
 7:00 PM Dinner (Exhibit Hall)  
 7:45–10:00 PM Casino Night  
 11:00 PM Exhibit/Hospitality Ballroom Closes

#### Saturday

7:00 –10:00 AM Breakfast  
**8:30 AM Men’s & Ladies Combined Program**  
 (*Smith Cameron & Reynolds*)  
 8:45 AM Relationships  
 (Rollie Boreham CEO, Baldor Electric)  
 Author: The Three Legged Stool  
 9:40 AM Relationships  
 (Dr. Wayne Sotile and wife Mary Sotile)  
 Questions and Answers  
 11:30 AM Adjourn  
 12:00 NOON Reception  
 6:00 – 7:00 PM Reception  
 6:00–12:00 PM Final Banquet and Dance

# Southeastern Chapter – 61<sup>st</sup> Annual Fall Conference

## Raleigh, NC \* October 21 - 23

### REGISTRATION INFORMATION

#### *Golf Tournament*

Thursday, October 21



Martin and Myra Rigsbee of Southern Electric Motor Company of Durham NC have selected the Governors Club. This facility offers a challenge found at few other courses. I am planning to caddy just for the experience. Maybe some of you non-golfers will join us?

#### *Tennis Tournament*

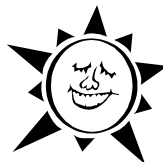
Thursday, October 21



Garrett Wolters of R.F. Wolters Company is planning our Tennis Tournament to be held at The Embassy Suites. Last year tournament left some unsettled beliefs on who was best dressed. I have been told to look out for the "plaid warrior" from Florida. Sounds like wrestling to me.

#### *Exhibit Hall*

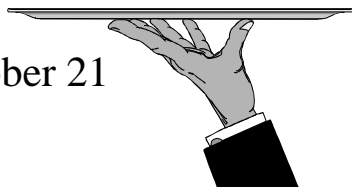
Thursday, Friday & Saturday



Steve Macbee of Landgraf-McAbee has put together an interesting list of exhibitors. The tabletop displays are always informative. We are fortunate to have 9600 square feet of exhibit space.

#### *President's Reception*

Thursday, October 21



Brenda Cole, our Meeting Planner and Georgia State Director insisted on sampling all the goodies before passing judgement. She has assured me that it is all healthy choice. (Her choice). We look forward to seeing old friends and making new acquaintances.

#### *Men's Program*

Friday, October 22



◆ **Don Lammers** of Vaughns Price Publishing Company is speaking on Job Costing. With today's premium efficient and inverter duty motors we need to keep current with material and labor cost. Don has developed a "Productivity Guide" for the shop. "When productivity is measured, productivity improves. When productivity is measured and reported, productivity improves dramatically. When productivity is measured, reported and rewarded, productivity becomes astonishing!"

◆ **Jerry Peerbolt**, Baldor Electric, former Chairman of EASA Sales and Marketing committee will present "Total Value". Yes we can promote our service, sales and most of all experience to our customers. Can the national chains provide our expertise? We have to practice promoting our strengths. Jerry understands our business. From his perspective we shall re-learn marketing and selling through our strengths.

◆ **David Horton**, Darby Electric, past president of our chapter, presents Southeastern Chapter Training Initiative. David and his committee are working on "schools" for our chapter members. David will share his vision and solicit ideas from the members on how to more effectively bring these schools to life. Your chapter at work for you.

◆ **"A Guided Tour Through The World Wide Web"**. Sit back and enjoy a truly exciting adventure. A absolutely unique prospective to the Web. You would not see Rome without a guide. Let us expose you to the wonders of the Web. For business, travel, hobbies, sports, and pure entertainment, please join us.

◆ Tour and lunch at **Advanced Energy** and tour **NC State School of Textiles**. Advanced Energy has invited us to visit their facility at Centennial Campus. They have set up several demonstrations that you will find informative. NC State School of Textiles has set up a most interesting exhibit. See the latest trends in the textile industry. How will the USA stay competitive in the world markets? Many shops repair and sell motors used on textile machines. Both tours will be fun and informative. You may be surprised on the information you take back. Ask questions.

Continued from page 2

## Ladies Program ♥

Friday, October 22



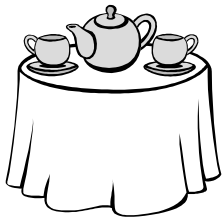
♥ **Pete Penning**, FGM & Associates shares "Time for Me", OPM (Organizing, Prioritizing, Managing) Are you working harder and longer and getting further behind? Do you arrive home with no energy left for family, friends or yourself? Do you begin the day not knowing what you want to accomplish? Want to know a better way!!! Attend Pete's seminar and find out!!

♥ A "Guided Tour Through The World Wide Web". Sit back and enjoy a truly exciting adventure. A absolutely unique perspective to the Web. You would not see Rome with out a guide, let us expose you to the wonders of the Web. From business, travel, hobbies, sports, and pure entertainment please join us.



## ♥ Outing and Excursion.

Visit Historic sights, gardens and shopping. (As weather permits)

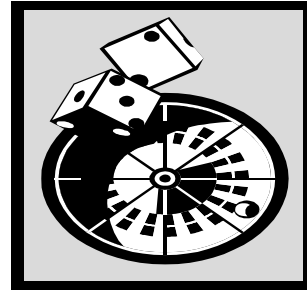


## ♥ Visit the Lady's "Tea Room".

Play cards, share adventures, and become acquainted. Relax and enjoy.

## Combined ♦ ♥ Men & Ladies Program

Friday, October 22



## ♦ ♥ Casino Night & Dinner

Put your luck and skill to the test. Don't know how to play? That's ok. Just step up and we will let you know if you win.

## Saturday, October 23 Relationships,

♦ ♥ **Roland S. Boreham** Chairman of the Board of Baldor Electric Company shares his thoughts from his first book "The Three-Legged Stool", Relationships First - Success Follows. Rollie shares his ideas on building strong long-term relationships through commitments to fairness and trust. This is not a touchy-feely book on how to court and flatter. We can all improve our people skills.



Continued from page 3

Saturday, October 23



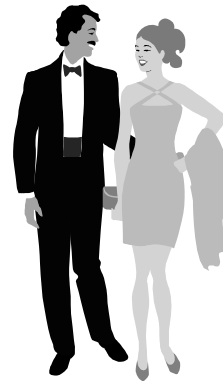
### Relationships,

Dr. Wayne Sotile and wife Mary are among the most sought-after conference speakers and consultants today. They have authored four books, including their latest, *Beat Stress Together: The BEST way to a passionate marriage, a healthy family and a productive life.*

The Sotiles' have been featured in international media on national television. They have consulted with over 300 corporations and delivered over 1000 keynote presentations.



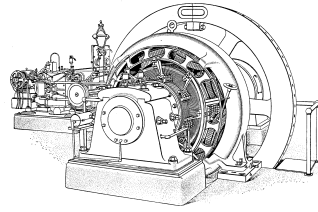
### Final Banquet and Dance



# Southeastern Chapter – 61<sup>st</sup> Annual Fall Conference

Raleigh, NC

ADDITIONAL



October 21 – 23

INFORMATION

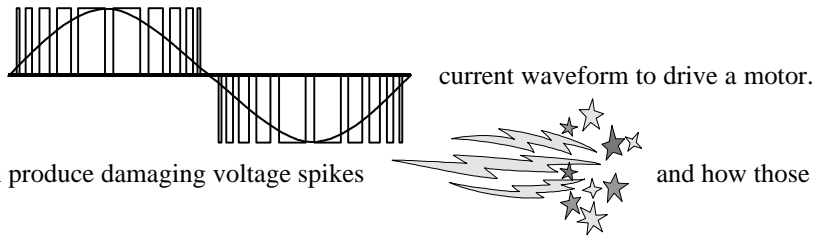
## Friday, October 22 –Lunch & Tour Outline Advanced Energy Corporation & NC State University College of Textiles

### Lunch

#### Station # 1 Drives

##### Discussion:

- How PWM inverter creates the simulated sinusoidal
- Why that waveform has a harmonic content.
- The effect of that harmonic content in the motor.
- Why the distance between the drive and the motor can produce damaging voltage spikes

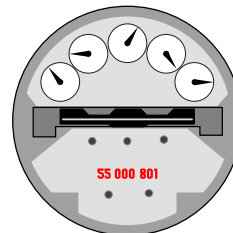


##### Display:

- Poster of basic PWM drive hardware configuration.
- Poster of typical PWM voltage & current output waveforms.
- Poster of PWM current waveform broken down by harmonic frequencies.
- Oscilloscope display of the voltage output of a small PWM drive in operation.
- Oscilloscope display of the voltage output of a small PWM drive downstream from an inductive filter device.

#### Station # 2 Measurement Techniques

**Description:** This station will illustrate the use of sensors in such as speed, torque, kilowatts, voltage, and current. With a Power device, a motors performance parameters can be observed and recorded

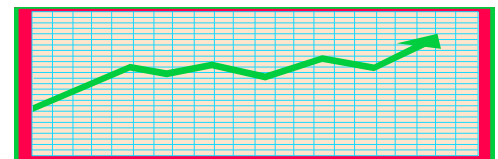


measuring motor related parameters  
Absorption Unit (pau) or loading  
while under load.

The theory of operation of various TTL pulse devices and strain gauges will be discussed. Additionally, there will be discussions on the benefits of both analog and digital instrumentation. Formulas will be provided to assist in the calculation of parameters that are not easily measured, for example; output horsepower (Hp) can be obtained by simply multiplying speed and torque, input power (kW) can be measured directly or calculated by multiplying voltage, current, and *pf*.

##### Demonstration:

- The TTL output from a geared tooth or reflective tape is displayed on the oscilloscope and the techniques used to time the pulses are described.
- A torque sensor calibration can be demonstrated by placing weights on a reaction arm. The instruments offset, gain, and linearity are calculated and graphically plotted.
- A graphic shows the relationship between horsepower, load, and speed.
- A graphic shows the differences between using analog input and digital input for measuring input load. The advantages and disadvantages of each can be discussed.



### Station # 3 Powder Coating painting process

**Discussion:** Powder coating is a finishing process that results in the fusion of paint or protective coating to metal products such as motors.

**Benefits:**

Improved Quality, efficiency, and reduced costs

- Higher quality appearance due to no runs, drips, sags, or dirt in the finish.
- Higher Durability including its hardness, chemical resistance, and flexibility.
- Efficient use of coating materials with utilization in excess of 90%, due to the adhere to the product can be recovered and used again.
- Labor costs attributed to mixing of paint, clean-up, application of additional coats, and even quality inspection time can often be eliminated or reduced.



powder that doesn't

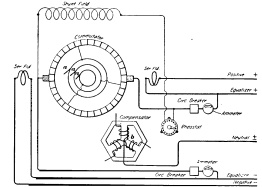
Compliance with environmental, safety, and health regulations

- Solvent based finishes contain volatile organic compounds (VOCs) and hazardous air pollutants (HAPs) which make it a challenge and more costly to comply with local, state, and federal environmental regulations.
- The more environmentally friendly powder-coating process eliminates the risks associated with solvent-based coatings resulting in reduced risks to the health and safety of employees

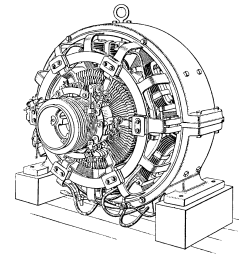
**Demonstration:** Station will include a demonstration of actual items being painted and cured.

### Station # 4 Motor testing methods using IEEE 112

**Discussion:** This station will briefly cover the IEEE 112 test standard and describe the various methods for determining electric motor efficiency. We will discuss the 112 Method B procedure in detail and explain why this method is used by EPACT to determine motor efficiency. We will discuss the five types of losses in the motor and demonstrate how the 112B procedure segregates the losses. Additionally, we will discuss the other testing methods used throughout the world (JEC, IEC, CSA) and explain their differences and why they result in different efficiency values.

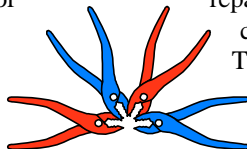


**Demonstration:** This station will have an actual electric motor test in progress. Completed test reports will be used during the discussions to aid the participant in his/her understanding of the topic.



### Station # 5 Proven Excellence Verification (PEV)

**Discussion:** PEV is intended to furnish motor customers with verification that the facility is quality a-c induction motor diagnosis and repair. of clear understanding of the program your quality work verified by an independent,



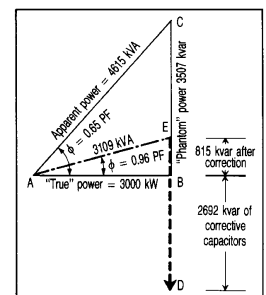
repair facilities and their capable of providing high The PEV components will be discussed so that the participant has requirements, its cost, and the benefits to be gained by having non-biased, non-profit accrediting organization.

**Display:** Test reports demonstrating various degradation in performance will be displayed along with a listing of all repair organizations currently accredited or pursuing accreditation.

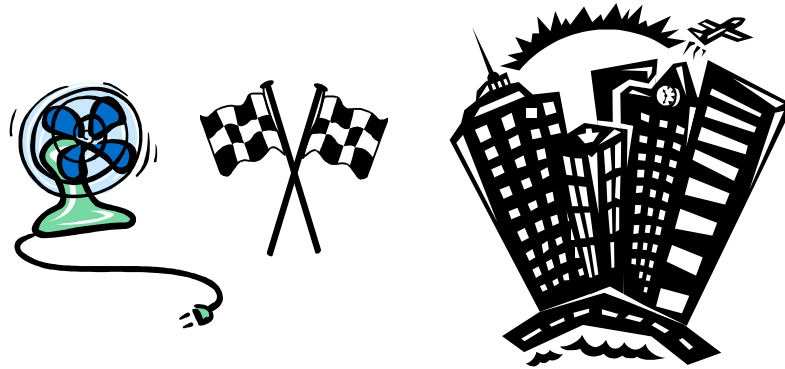
### Station # 6 Power Factor (pf):

**Discussion:** This station will explain how induction motor needs lagging current to run and will explain the use of capacitors to correct *pf*. It will cover “ELI the ICE man” to help participants remember *pf* and will cover the power triangle and the use of the cosine of the angle theta to calculate *pf*.

**Display:** Station will have power factor demonstration device that uses hardware and software to show the relationship between current, power (kW), and power factor (*pf*), and demonstrate how capacitance and load on the motor effects these parameters and their inter-relationships.



## **Station #7 Motors, Ventilation Equipment and Performance Testing** **in a Building Science Application**



**Discussion:** Electric motors are utilized in Energy Recovery Ventilators to provide preconditioned, balanced ventilation air for homes and businesses. Motor(s) drive a pair of blower wheels to create the two air streams and rotate the enthalpy wheel. Applied controls can then operate the system at different airflow rates. The completed equipment can then be certified to provide a specific Total Recovery Efficiently at a specific airflow and indoor and outdoor conditions. The data is published, the boxes are marketed and thousands are sold. What happens when an Applied Building Scientist performance tests several samples of the installed equipment in the field?

**Display:** One of the thousands of malfunctioning Energy Recovery Ventilators will be on display. Additionally the motor/fan system used to performance test in the field will be on display. Data, photos and a brief review of the interaction sequence with the manufacturer that resulted in the acknowledgement of malfunctioning equipment will be included.

## **NC State University College of Textiles**

The College of Textiles at NCSU is recognized as the premier textile school in the nation – the finest facilities, world-renowned faculty, the largest student body. New \$50 million, 300,000 square foot teaching and research facility on the 1,000 acre Centennial Campus at NCSU. Relations with industry are excellent, thanks to collaborative research programs, faculty member with an average ten years of industry experience, and 6,000 alumni, many of whom hold executive positions in their companies.

If you think textiles is a declining industry that has no future, think again. The textile industry is often thought of as being battered by imports or hampered by outdated plants. Actually the industry has been modernizing and has become one of the most efficient industries in the United States. The fiber, textile and fabricated products industry consists of more than 26,000 companies, which employ over ten percent of the American manufacturing work force. The textile industry complex contributes more than \$70 billion to the Gross National Product. As the industry looks toward the future and becomes more automated and computerized, it will need more people with skills in engineering, management, chemistry, design, electronics, and computers. Consequently, there is a terrific demand for our graduates.

Man made fiber production, filament yarn, texturing, spun yarn, warping, slashing, weaving, knitting, nonwoven manufacturing, fabric preparation, dyeing, finishing, raw materials and systems.

**Make plans to be on this tour, send in your registration by September 25, 1999.**



**EASA Southeastern Chapter**  
 1397 Blashfield Street SE  
 Atlanta, GA 30315  
 (404) 622-1441  
 (404) 622-0461 FAX

**1999 FALL CONFERENCE  
 REGISTRATION**  
 October 21-23, 1999  
 Raleigh, North Carolina

PLEASE PRINT OR TYPE

Company
Address
City / State / Zip
Phone / Fax

<input type="checkbox"/> Southeastern Chapter Active Member
<input type="checkbox"/> Southeastern Chapter Affiliate Member
<input type="checkbox"/> Other Chapter:
<input type="checkbox"/> Tabletop Exhibitor

For More Information Contact  
 Ken Randall (704) 289-6479  
 Jim Snow (336) 723-2092

ATTEND FRIDAY

ATTEND

\$165 each

FIRST NAME	LAST NAME	BADGE NAME (IF DIFFERENT)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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Total Enclosed						<input type="text"/>

**You must contact Embassy Suites for room registration before the cut-off date of September 25 in order to obtain these discounted rates!**

***Don't delay! State Fair and football game are same weekend as this conference.***

Total Room Charge per night (+ taxes)	
Single Occupancy	\$124
Double Occupancy	\$134
3-4 Occupants	\$144



**Embassy Suites Hotel & Conference Center**  
 Raleigh Durham Airport  
 201 Harrison Oaks Boulevard  
 Cary, North Carolina 27513  
 (919) 677-1840

**METHOD OF PAYMENT:** Check  VISA  MasterCard

**EASA Southeastern Chapter**  
 1397 Blashfield Street SE  
 Atlanta, GA 30315



**If paying by credit card,  
 you may register by  
 faxing this form to:  
 404-622-0461**

NAME ON CARD (PLEASE PRINT)	
CREDIT CARD NUMBER	AMOUNT OF CHARGE
SIGNATURE	EXPIRATION DATE

**Registrations cannot be accepted without payment.  
 Cancellations will receive FULL REFUND provided they are received in writing prior to October 13.**



## *Happy Anniversary!*

The following Chapter member is scheduled to receive recognition at the Fall Conference in Raleigh, North Carolina this October. If this is your company's 25<sup>th</sup>, 40<sup>th</sup>, 50<sup>th</sup>, 60<sup>th</sup>, or 75<sup>th</sup> anniversary, but it isn't listed below, please contact the Chapter office immediately so that we can honor your years of service in the industry.

**Do you know an individual who is celebrating 50 years of service in the electrical apparatus repair industry?** If this person will be attending the Fall Conference this October, please notify the Chapter office so that we can plan to recognize their years of service also.

***40 Year Member Service Award***  
Servicio Electrico Industrial  
Guatemala

### **1999 Centrifugal Pump Seminar Charlotte, North Carolina**

By Christ Raines, Porter's Electric Motor Service

Men were down on their knees removing the volute from a vertical centrifugal pump. The impeller was then removed, followed by other parts until a once assembled unit now lay in pieces. This would be the usual scene in a repair shop, but how about a seminar? On August 27 and 28, Roger Jenkins conducted the Centrifugal Pump Repair Seminar in Charlotte, North Carolina. In addition to this hands-on disassembly, the attendees received hours of valuable classroom instruction.

The class was full, and the companies that participated not only took advantage of a great value (subsidized by the Southeastern Chapter) but their representatives also left with a greater understanding of the repair and testing of centrifugal pumps.

### **1999 Bearing Seminar Atlanta, Georgia**

By David Horton, Darby Electric

The Southeastern Chapter Bearing Seminar was held at the Atlanta Airport Marriott on August 27, 1999. Twelve students attended the session presented by Mr. Billy Potts of Bartlett Bearing Company, Inc. The class may have been small but those who attended gained a great deal of knowledge about bearings. They learned about the four parts of a bearing, how to determine the bore size of bearings, different types of retainers, the difference between a contact and a non-contact sealed bearing, tolerance classes, and clearances. They even learned that all greases are NOT compatible with each other. One student was overheard saying, "I learned one thing today that will pay for this school on the next vertical unit I get in for repair." Companies that took advantage of this training will recoup their costs by reducing mistakes related to bearings.

#### **BARTLETT BEARING COMPANY, INC.**

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*See inside for more details on the exciting  
Southeastern Chapter  
1999 Annual Fall Conference  
October 21-23  
Raleigh, North Carolina*

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Start planning now for the  
Southeastern Chapter  
2000 Spring Technical Forum  
April 27-29  
Atlanta, Georgia

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**Southeastern Chapter**  
**Electrical Apparatus Service Association**  
Raymond K. Paden, Exec Sec/Treas  
1397 Blashfield Street, SE  
Atlanta, GA 30315  
(404) 622-1441 (404) 622-0461 FAX