

# Polymer Valley News

The Newsletter of the Akron Section of the Society of Plastics Engineers  
Our 47<sup>th</sup> Year of Education and Service to the Plastics Industry

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## Costs, Schedules, Reservations

Member	\$25.00
Member and One Guest	\$40.00
Retiree	\$20.00
Student	\$10.00
New Members	No Charge
Cocktails	5:30 p.m.
Dinner	6:15 p.m.

Email Cameron Fraser before noon,  
Nov. 16 and specify dietary  
restrictions - cfraser@uakron.edu

## Technical Meeting

November 20, 2006

5:30 p.m.

## Guy's Party Center

500 East Waterloo Road

Akron, Ohio 44319

### Design Flexibility and Fundamentals of Co-Rotating Twin-Screw Extruders

By Paul Andersen

Sr. Manager of Process

Technology and New Development



The co-rotating twin-screw extruder is the predominant compounding machine in the polymer processing industry. To gain and then maintain this status, the mechanical design of twin-screw extruders has evolved over 50 plus years to meet the continual demand for increased product quality and economic efficiency. This evolution has resulted in extruders with increased power (torque), greater internal free volume, running at higher screw rpm. In order to accomplish these increases in power, volume and screw speed, the machine designer had to consider not only the mechanical reliability of the overall system, but also the impact these design "improvements" had on the compounding process.

... continued on page 5

See page 3 for  
Mr. Andersen's biography

Coming Up:

- Next meeting – Dec. 14, 2006
- Board meeting – Nov. 6, 2006, 5:15 p.m., Polymer Eng. Center

Nov., 2006, Page 1



# President's Message

Your very capable Board of Directors aims to enhance the effectiveness of the Section's programs and services.

But this cannot happen without your help and involvement. First of all, we need your input to help guide our planning for programs and events. Secondly, we need your attendance at those events, to enhance the opportunity for networking with peers, suppliers and customers that constitutes such a large benefit of Society membership. Finally, we welcome your participation on our board, if you would be so inclined to volunteer your skills and time. We need your skills and talents to keep our society strong and prosperous.

Please feel free to contact me by phone (216-741-6883) or e-mail [johnwoodside@ameritech.net](mailto:johnwoodside@ameritech.net), or better yet, in person at one of our monthly meetings.

I'm looking forward to seeing you.

John Woodside  
President, Akron Section 2006-2007

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## Map to Guy's Party Center

500 East Waterloo Road  
Akron, Ohio 44319

\*After following most of these directions, Guy's is a very short distance from the exit on the left, just before Giant Eagle and across the street from Scorchers and the Waterloo Restaurant.

### From the North (Akron, Cuy. Falls, Hudson, E. Cleve)

Take Route 8 south until it becomes 77 south. Continue on 77 south for a little less than 2 more miles. Take the Waterloo Rd exit. Turn right at the bottom of the ramp.

### From the Northwest (Fairlawn, Montrose, W. Cleve)

Follow 77 south until it combines with 76 and then separates again, heading south (Rt 8 will head north, 77 will head south, take 77 south). Continue for a little less than 2 more miles. Take the Waterloo Rd exit. Turn right at the bottom of the ramp.

### From the East (Kent, Ravenna, Youngstown)

Follow 76 west to 77 south. Continue on 77 south for a little less than 2 miles. Take the Waterloo Road exit. Turn right at the bottom of the exit ramp.

### From the West (I-71, Wadsworth, Baberton)

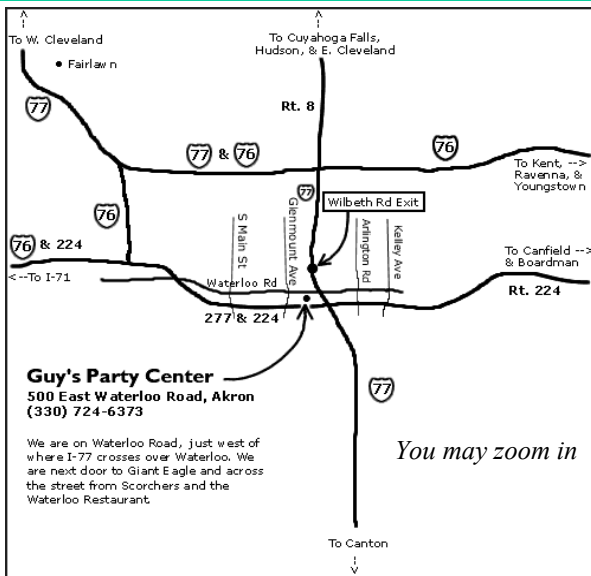
Take 76/224 east until it turns into only St. Rt. 224. Follow St. Rt. 224 east to the Main Street exit. Turn left onto Main at the end of the exit ramp. Turn right at first major intersection -- Waterloo. Guy's is about a mile up on the right, just past Giant Eagle and across the street from Scorchers and the Waterloo Restaurant.

### From the South (Canton)

This is a little strange, but the easiest way. There is an exit ramp onto Waterloo from 77 south, but NOT from 77 north, so follow 77 north to the Wilbeth Road exit. Get off on that exit, then make two lefts, thus getting back onto 77 going SOUTH. Take the very next exit - Waterloo Rd. Turn right at the bottom of the exit ramp.

### From the Southeast (Canfield, Boardman, Alliance)

Follow St. Rt. 224 west to Kelley Ave/Waterloo Rd exit. Turn right at the end of the exit ramp and then, almost immediately, left onto Waterloo Rd. Take Waterloo Rd past where it crosses under I-77.



## Mr. Paul Andersen Biography of Speaker

Paul is Sr. Manager of Process Technology and New Development for Coperion Corporation in Ramsey, NJ. In this position he is responsible for Twin Screw Extrusion Process Engineering and Technology Development.

Paul has been a member of the SPE Extrusion Division Board of Directors since 1990. He is also a member of the SPE Executive Committee and currently SPE Secretary.

In addition to his SPE governance activities, Paul has co-authored numerous ANTEC and Topical Conference technical papers, wrote the chapter on Co-rotating Twin-screw Extrusion for the SPE Plastics Technician's Toolbox and served as technical consultant for the SPE Twin-screw Extrusion educational video series.

In addition to his SPE activities, Paul serves on the Editorial Board of *Advances in Polymer Technology*, and has authored papers for several journals as well as several book chapters. These include *Mixing Practices in Corotating Twin-Screw Extruders* in "Mixing and Compounding of Polymers" edited by Manas & Tadmor; and *The Werner & Pfleiderer Twin-Screw Co-Rotating Extruder System* in "Plastics Compounding" edited by Todd. He also has been awarded six U.S. patents related to the area of twin-screw reactive extrusion compounding as well as devolatilization.



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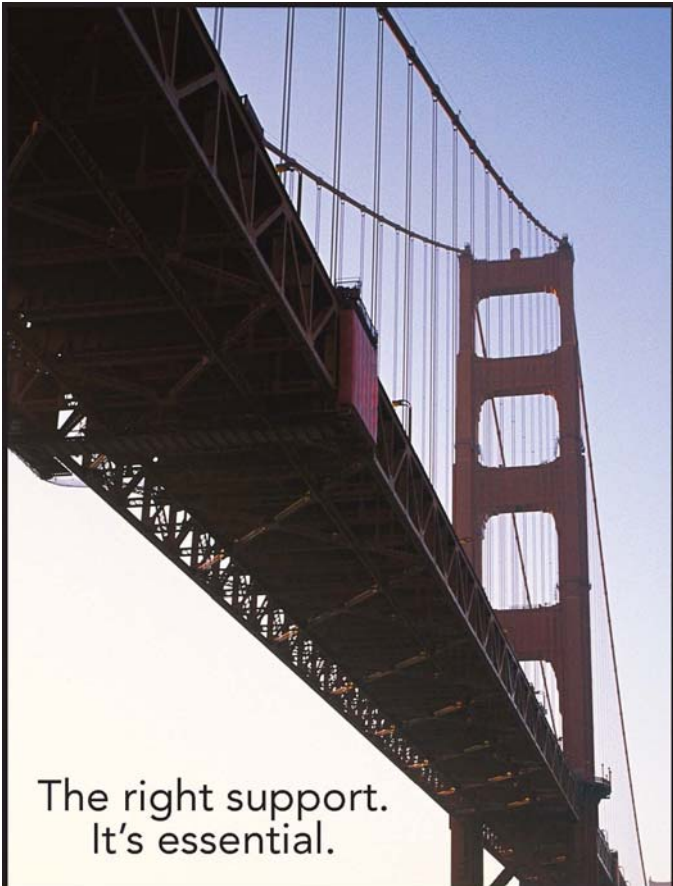


... continued from page 1

Therefore, the design objective was to transmit maximum torque through the screw shafts while at the same time maintaining sufficient processing volume inside the machine. Throughput rate at a specific rpm determines the degree of fill in the machine. In most processes, a higher degree of fill ensures more gentle treatment of the product because the average shear rate is lower. Another way to approach this issue is to say that greater torque enables use of a lower screw speed and thus, for the same throughput, a higher degree of fill in the screw flights. Unfortunately, all of these design advances will be of no value to the processor without firm understanding of extruder fundamentals. During this presentation, mechanical and process design considerations as well as the impact of the newest developments on compounding technology, along with supporting processing examples, will be reviewed. However before getting into the newest developments, an introductory overview of the technology will be presented. The function of extruder components such as drive, gearbox and process section is described. Also, barrel options and the operating principle behind the various screw elements will be discussed.

## EPSDIV TopCon Summary

The Engineering Properties and Structures Division (EPSDIV) sponsored a TopCon October 23-24 on The University of Akron campus. The conference on the subject of Organic and Polymer Display Technologies was the first of its kind. The 54 attendees heard sixteen presentations during the event. The Akron Section participated in this TopCon by supplying logistical support at the local level for which the planning began fifteen months ago. The corporate sponsors were Kodak, Bayer Material Science, Eastman, and The University of Akron. Rumor has it that "organic and polymer display technologies" will become a regular session subject at future ANTEC meetings.



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## Technical Assistance Initiated On Akron SPE Web Site

*Do you have a technical question on plastics, polymers, rubbers, etc. Our web site now has a place where you can detail your question and the Akron SPE Board will use their collective knowledge and resources to answer your questions. Check it out at [www.akronspe.org](http://www.akronspe.org). If you post a question we will post it in the following newsletter along with the answer.*



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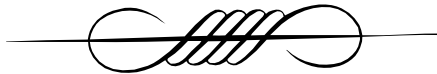
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1963-1964	Edward L. Hillier	1986-1987	Harry J. Barth
1964-1965	John R. Russell	1987-1988	Judith A. Fallon
1965-1966	John R. Russell	1988-1989	William E. Tosco
1966-1967	Clyde H. Jones	1989-1990	Robert Wegelin
1967-1968	Alan Corry, Jr.	1990-1991	Geraldine R. Stromquist
1968-1969	Bernard M. Saffian	1991-1992	Spencer Keiser
1969-1970	Harold R. Schick	1992-1993	Robert Wegelin
1970-1971	Robert G. Hills	1993-1994	Tony Dean
1971-1972	John J. Satterfield	1994-1995	Wayne Decamp
1972-1973	Alexis M. Gross	1995-1996	Melanie Stewart
1973-1974	Francis J. Maurer	1996-1997	Kevin Hershfield
1974-1975	Leverett A. Anderson, Jr.	1997-1998	Dave Schultz
1975-1976	Robert M. Hershey	1998-1999	John Raab
1976-1977	Richard L. Fleshman	1999-2000	Gary Taylor
1977-1978	David Curtis	2000-2001	Kevin Malpass
1978-1979	John A. Zelek, Jr.	2001-2002	Ken Sharp
1979-1980	Gerald W. Whitnable	2002-2003	Joe Pfeiffer
1980-1981	Kathleen N. Bechter	2003-2004	Robert Wegelin
1981-1982	Victor E. Giuffrida	2004-2005	Joe Mattingly
		2005-2006	Lloyd Goettler



## News from Student Chapter

One of the big outreach events which my committee members and I organized was the “Polymer Awareness Day” on October 26<sup>th</sup> at the UA campus. The event spanned from 8:00 am until 3:15 pm and was organized in the form of a festival to increase the knowledge and interest of the community in plastics, and to exhibit the various research activities that the University of Akron polymer program has to offer.

The participants of this event included 25 high school students, grades 9-12, from the following local high schools: Firestone, Stow/Munroe Falls and East, as well as students from the Upper Bound Math and Science Program working under the supervision of Mr. John Vesalo of the UA Polymer Science program.

The event began with a warm welcome from the polymer engineering department chair and the student chapter president. This was followed by an introductory video on plastics and processing. Next, tours of the polymer engineering laboratory facilities were made, and demonstrations of the following machinery were performed by graduate students in front of the students and coordinators:

- The twin screw extruder
- The injection molding machine
- The tubular film blowing machine
- The capillary rheometer

During these demonstrations, the students got a feel of how a typical workday looks like in the polymer industry, and were given a chance to explore the usefulness and operating procedures of these machines. They were awed by the large-sized pieces of equipment in the labs, and asked several questions to the graduate students, who were happy to answer them. In addition, the students got the opportunity to take some samples (such as extrudates and injection molded parts) home with them to remember their special day.

Also during this event, poster presentations about polymers were made by the high school students in front of a judging committee of graduate students, and the judges chose 3 top winners for awards. Basically, the students had 6 weeks to work on the projects, and they brought them to the event, along with short papers, for a chance to win prizes. They got a chance to work on their presentation skills in front of the judges.

Furthermore, essays that the students wrote for the essay competition were graded and handed back to the students, along with tips on which areas that the students need to work on. A trivia quiz was also given during the event, in which students split into teams of two and answered questions coming from material they were previously assigned to study. The students were also given a lunch with the graduate students, in which discussions about the polymer field were made. Prizes were as follows:

- 1) Awards for the science fair projects:  
1<sup>st</sup> place: \$100, 2<sup>nd</sup> place: \$75, 3<sup>rd</sup> place: \$50
- 2) Awards for the winning team members of the polymer trivia quiz: \$50 per team member.
- 3) Awards for the essay competition:  
1<sup>st</sup> place: \$100, 2<sup>nd</sup> place: \$75, 3<sup>rd</sup> place: \$50

*(continued on next page)*



## Programs for 2006 / 2007

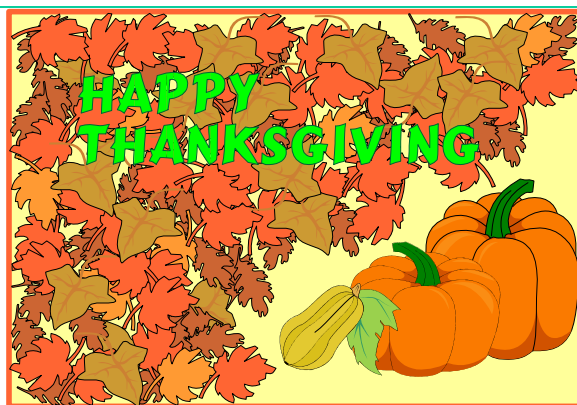
Sept. 18	<b>Latest Advances in Engineering Thermoplastics</b> Bob Moran, GE Plastics -- Martin Center	Jan. 22	<b>Mini-Symposium: Is PVC Dying?</b> A.Schulman; PolyOne; Allan Marshall, Omnova; Kenneth Abate, Veka, Inc. -- Guy's Party Center
Oct. 16	<b>Presentation and Tour of Kent State Liquid Crystal Institute</b> Dr. Philip J. Bos, LCI Associate Dir. -- Kent State Student Union	Feb. 19	<b>The Future of Nanocomposites</b> Lloyd Goettler, Akron U -- Martin Center
Oct. 23-24	EPSDIV / Akron SPE TOPCON: <b>Recent Advances in Organic and Polymer Display Technologies</b> -- Akron University	Mar. 19	<b>Molders Night – Global Competitiveness</b> Bob Beesley, Design Molded Prod.; Rich Esterle, Esterle Mold & Mach.; Jerry Graf, DLH Ind. -- Guy's Party Center
Nov. 20	<b>Latest Advances in Twin-Screw Compounding Extruders</b> Paul Andersen, Coperion -- Guy's Party Center	Apr. 16	<b>Bio-Engineering with Polymers</b> Tony Walder, Noveon Thermedics; Larry Johnson, Foster; Judit Puskas, Akron U -- Martin Center
Dec. 14	<b>Holiday Party</b> (bring significant other) Christmas Special - For the Ladies; Deck the Halls; Madrigals -- Stan Hywet	May 21	<b>Awards Night</b> -- TBA
		May 18	<b>Spring Golf Outing - with Cleveland</b> -- Barberton Brookside CC

## News from Student Chapter

*Continued from previous page*

In addition to all these activities, students got a chance to interact with graduate students of the Department of Polymer Engineering and to ask questions related to opportunities in the polymer industry, the type of work that polymer graduate students do, etc.. However, one of the most amazing parts of this event included a speech and demonstration about electrospinning of a polymer from solution.

Polymer nanofibers were electrospun onto the hands of student volunteers, and molds of the students' hands were made in front of an awe-stricken crowd of students and coordinators. This was done by Dr. Dan Smith of the Chemistry Department at UAkron. At the end of the event, the winning students were presented with certificates stating their ranks in the essay competition, trivia quiz competition and poster presentations.





## Councilor's Corner

I attended the Pittsburgh Council Committee of the Whole and the Council Meeting as Proxy for Joe Pfeiffer on Saturday, September 30, and the ANTEC and Sections Committee meetings on Friday, September 29.

The main discussion point at the ANTEC meeting was a survey of non-attendees at the last ANTEC and the new joint SPE Technical Conference and Plastics Encounter Show organized by Plastics News to be held in the Cincinnati Convention Center next May 7-10, 2007. The SPE Technical conference will begin on Monday May 7 and continue through the morning of Thursday May 10. The Plastics Encounter Show will be on the Tuesday and Wednesday. A number of major changes have been made in the events schedule for the week. The Conference hotels will be the Millennium Cincinnati (Headquarters) and the Hyatt Regency Cincinnati.

The Sections Committee recognized Dick Cameron for his work in resurrecting the Pittsburgh Section. He again emphasized the importance of reaching out personally to top management of local companies to get them directly involved with running the section affairs and supporting their employees to participate on the section board and in section meetings. We are doing a similar mobilization activity through our 20/20 Program. He also urged other sections to clean up their membership e-mail lists—they had 40% returned—after assigning responsibility to do this they added 350 new members. The other main activity was discussion on merging of sections and how SPE would handle this and also improving the Write-Now document for presenters.

At the Council meeting the councilor from Central Ohio was reinstated which formally reactivates the Section. This is due in no small part to the supportive efforts of the Akron, Cleveland and Pittsburgh Sections.

Susan Oderwald your Executive Director announced that SPE was still in the black for a second year in a row with membership holding steady at around 19,500. A surplus of 115,000\$ is projected for the 2007 Budget.

Motions made and approved at the Council meeting were:

- The new SPE/Plastics Encounter ANTEC for 2007
- The 2007 Budget Proposal
- First Amendment to the new By Laws
- Four new SPE Policy documents to accompany the new By Laws
- New Student Chapters
- The TPC Chairman for the 2008 ANTEC.

Roger Ferris gave a presentation on the new Global Plastics Engineering magazine. This will combine the previous Plastics Engineering with the European Plastics Engineering into one new magazine and will focus on global SPE activities and events.

Jack Hill introduced the new "Outstanding Student Chapter Award" which replaces the STRETCH Award. Ten student chapters will be chosen to receive 500\$ each. The 5000\$ Husky Award will continue to be offered to Sections and the 2500\$ Chase Award will be offered to Student Chapters for the best future use of funds.

The next Council Meeting will be in Charleston, SC in January, 2007.

Respectfully submitted,  
*Vivian E. Malpass, Proxy for Akron Section Councilor*



# Membership Report –September, 2006

Akron had 12 new members join in September. Our membership number is at **401** - See list for new members. We also had one transfer out and 3 transfer in to our section.

## Membership News from National

•National news, total membership is at 19208. Variance from 2005 is (95).

*Membership chair, Joe Mattingly*

**New Members** - Say “hello and thanks for joining” if you know the following people.

**Scott Arno**polin  
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**Edward Devlin**  
Devlin Group

**Wenyi Huang**  
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## Akron Polymer Training Center

Provides training classes for plastic and rubber processors taught by University of Akron faculty and industry professionals. Visit our website at [www2.uakron.edu/aptc](http://www2.uakron.edu/aptc) for a complete list of our current course offerings.

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Our programs are designed to enhance on-the-job effectiveness for all professionals working in the polymer field. If you are experiencing difficulty with polymer-related design or processing problems, contact us. Our reliable and dedicated staff will work with your team to develop a training strategy guaranteed to produce results. Contact Tayba Tahir by phone at **330.972.8661** or email Tayba at [tahir@uakron.edu](mailto:tahir@uakron.edu). If you don't see what you need, no problem! We have the resources to solve even the most vexing polymer processing and design issues.



## Give your tooling an end-of-the-year checkup with these 8 tips from D-M-E

Yearly maintenance procedures will be different for every injection molding location depending on mold cycle volume. Here are some general guidelines that any molder can use for your hot runners, heaters, leader and ejector pins and more to keep your tooling running efficiently and to prevent unwanted surprises.

- 1. Check vents for telltale rust or moisture** – If you see rust or moisture around a hot runner vent hole, it indicates internal condensation or the possibility that a water line popped off. This moisture causes a short and can be fatal to heaters. When machines are not running 24/7 and are turned off overnight or on weekends, the chances of such condensation increases.
- 2. Take the time to remind operators not to ‘clear’ nozzle tips from gates** – If an operator happens to notice a tiny piece of steel flush with the gate of the mold, it may turn out to be a point-gate needle assembly. ‘Clearing’ this perceived obstruction usually destroys the nozzle tip. To prevent nozzle destruction, verify the tip style of the hot runner system before taking action and assure all operators are well trained to identify the different tip styles they will come in contact with.
- 3. Lubricate the slide retainers** – This is an activity that really should be done once a week if running a 24/7 operation. Year-end is a great opportunity to create a routine maintenance program for lubricating these parts.
- 4. Cross-check your heater ohm readings** – Assuming you checked the ohm readings when your heater was new, this is the time to take a new reading and compare. If the readings are up or down by 10 percent, it is time to start thinking about replacing the heater to ensure it does not fail at a critical time during your production process. If the initial ohm reading was never taken, get a reading now and use that as a baseline for future checks on that heater.
- 5. Look for signs of wear between leader pins and bushings** – Look for scores or scrapes. This damage is due to a lack of grease. If marks are just beginning, you can extend the life of the leader pins and bushings by keeping them well greased. If you find significant wear, it is time to install new parts. Otherwise, cavities and cores may not line-up properly, resulting in unequal wall thickness on your part.
- 6. Check for water flow** – Hookup a hose to the out port and run water through the water line into a bucket. Unclear or colored water may be a sign of rust and poor water flow signifies blockage. Drill out the water lines if these problems are found (or clean with whatever method you typically use). Future problems due to rust and blockage can be prevented by improvements in the plant’s water treatment system.
- 7. Clean the ejector pins** – Over the course of one year, ejector pins will become dirty with gas buildup and film. A good cleaning with mold cleaner every six to 12 months is recommended. Once clean, put a light coating of grease on the pins to prevent galling or breakage.
- 8. Look for nicks in the radius area of your sprue bushings** – Nicks are caused by leftover loose, hardened pieces of plastic left in the machine nozzle that cause damage due to clamping force from the injection carriage unit during injection forward. Problems may also occur from a misalignment issue. Look for both possibilities when nicks are found. Replace sprue bushings if damage is bad to prevent a flower pot leak (an old molder’s term: leakage of plastic between the bushing and the machine nozzle tip).

Following these tips will help you to recognize and prevent potential problems, keeping your molds running at optimal levels.

To talk to a D-M-E service specialist in your area with questions on yearly maintenance or for assistance with any of these procedures please call 800-626-6653 or email [Customer\\_Service@dme.net](mailto:Customer_Service@dme.net).

To find replacement parts needed to keep your tooling in optimal operating condition, check out the D-M-E product catalog found on [www.dme.net](http://www.dme.net). D-M-E is proud to be a resource to molders by providing them with replacement parts and advice needed to keep tooling at optimal efficiency all year long.



# Minutes of Board Meeting – October 2, 2006

**Call to Order:** 5:15 PM at Polymer Engineering and Academic Center

**Present:** John Woodside, Dave Schultz, Lloyd Goettler, Cameron Fraser, Vivian Malpass, Hermant Thakkar, Joe Mattingly, Kaan Gunes, Sylvain Seif and Tony Dean

**Absent -** Josh Wong, Sadhan Jana, Kevin Malpass, Reza Sadeghi, Amruth Puttarudraiah, Bob Wegelin, Gary Taylor and Joe Pfeiffer

**Minutes:** September minutes to be officially approved in October.

## **Added items to Agenda:**

1. Communication to members via e-mail and snail mail. Decided to confirm e-mail address for all Akron Section members by sending a self addressed postcard- snail mail addresses appear to be more correct than e-mail currently. Also need to compare and validate U of A listserv vs. Intl. SPE e-mail addresses on file. It is very critical that all members inform Akron Section of any and all e-mail changes.
2. All Committees that have Sequence of Events have been urged to supply John Woodside with that sequence to allow for follow-up currently and smooth transitions in the future.

**President:** John Woodside started off with recent new format e-mail from International that led to very important member communications issues.

**Past President:** Lloyd stated that ACESS could supply us with more information to help get the word out on our meetings. Joe Mattingly should attempt to get more help in the near future.

**Treasurer:** No report.

**Secretary:** Confirmed that Board has reviewed the 20/20 Program to bring in new members and company support. Visit will include list of 20 Reasons along with List of Action items that a company can do. Viv to set date with first targeted company.

**Awards:** Cameron will soon place the last several years' pictures in place on wall in Polymer Science Building. Winner for 2006 Bob Digiantonio in process of getting his picture developed and sent in.

**Student Chapter:** Sylvain Seif reports Polymer Awareness Day is set for October 26. The initial day for 2006 will include- Stow-Munroe Falls, Copley, Firestone, East and several Polymer Science students working with Marsha W. Projects will involve nanocomposites, water soluble polymers, recycling, etc. Plan to have Industry Speakers- possibly Bob Digiantonio and Dr. Dan Smith - Univ of Akron- Chemistry. Need to expand to other schools in Summit and Medina County for future. Polymer Ohio should be contacted for Public Relations article. Also noted Friday Night Movie night, Hike- Oct 1, Bowling /Pool Party- set for October?? Resume books being completed for 50 students for Rubber Div Meeting- Oct 11 in Cincinnati. Student chapter must keep good financial records.

**Newsletter:** Joe Pfeiffer not present but needs Newsletter items by mid October. Kaan Gunes has suggested recent material and process patents as possible Technical content in lieu Technical articles.

**Membership:** Joe Mattingly reported the section membership stands at 401. Joe reports got many returns on BAD e-mail info. Joe M and Joe P to compare lists- listserv vs e-mail from Intl.





# Minutes of Board Meeting – October 2, 2006 (cont.)

**Councilor's Report:** Viv reports for Joe as Proxy that effort we put forth to help Central Ohio Section has worked - they sent a Councilor to Pittsburgh to Council Meeting- Thanks to Akron Section Board Members who took time to visit and help SUPPORT Central Ohio!!! He also stated several Sections are being merged.

**EPSDIV TOPCON 2006:** On Track. The conference is a go. Need more attendees.

**TPE TOPCON 2007:** Vivian Malpass reported that the TOPCON is on schedule.

**Education Committee:** Hemant Thakkar has all scholarship info on hand for Bob Wegelin. Hemant also would like to have all Essay information sent soon along with details out for local Science Fairs- need to inform Coordinators that we will provide monies for Plastic/Polymer oriented experiments. Possibly add to Experiments at website? Need new Committee Members to help out. Reza Sadeghi have potential interest??

**Education Foundation:** No report Education Foundation may request funds from Akron SPE. Note: Omnova plans to contribute to Fund.

**Advertising:** Joe Mattingly reports that we have all Sponsors back from 2005 -06 and plan to add a few new ones in near future.

**Public Interest / Website:** Tony Dean reported all website info has been updated and he will continue to have the Akron Beacon Journal publish Akron SPE events working with Jim McKinnon. Tony Dean still looking into ABJ E-News site. Tony has added Technical Question section to website. Tony looking into other sources of PR- Plastics News, Polymer Ohio. Plastic Projects--Aaron Kaffen and Tony to talk Oct 3 re format for adding presentations- check with Polysort for up-keep.

A. calendar for 2006/07

B. Investigate possible awards for website

- Tony Dean to do:

**Program:** Vivian Malpass reports Program and Speakers set for Oct 16th-Liquid Crystal--Kent State- need more attendees. Need to confirm that a one week Blast will be sent out!! Viv has requested that ACS-Akron Section and Electrical Engineering component be made aware of Kent Sate Meeting and TOPCON. Oct 23-24- TOPCON EPSDIV, Nov 20- Twin Screw- Coperion. Dec14- Holiday Event being planned for Stan Hywet- details to follow- Buffet with Cash Bar.

**Fall Golf:** No report.

**Spring Golf:** No report.

**House:** Cameron Fraser will also take the reservations for 2006/2007 regular meetings. Requested that all be sent by e-mail/Fax. Plan to look at other locations for Awards- Hilton, Sheraton and Inventure Place.

**ACCESS:** Joe Mattingly and Lloyd Goettler will be the Akron Section SPE representatives to ACCESS for the 2006/2007 year. John Woodside will attend as the SPE President. Annual Awards Banquet set for Nov 2 at Guys- Lloyd, Cameron and David plan to attend. ACCESS has once again asked for \$500 donation to help with Banquet- Board voted on and approved funding. We feel there should reciprocal meeting notices sent from different member societies. Now have Bulletin Board hosted by Kent State.



# Minutes of Board Meeting – October 2, 2006 (cont.)

**20/20 Program:** The Past Presidents will implement the proposed 20/20 Program. Viv will spearhead the 20/20 Program with first company set. Lloyd and David will assist with visit and preparation of documents to have available during visit to include- 20 Reasons to Belong, Action Items that can be done by target companies plus Akron Section- Web Page for contact and International Membership forms.

**Old Business:** Nothing to report.

## **New Business:**

Viv reported that the Plastic Pioneers agreed to provide funding to a very worthwhile group of Teachers High and Middle school- known as Polymer Ambassadors- US basis. This is the flagship group from an Intersociety Education Council- IPEC. Akron Section may also like to help provide funding. Viv to forward the Activity Report to all Board Members.

Training Board Members - Sept 27---Tricia McKnight- Intl SPE held the training for 5 Board Members at Polymer Engineering and Academic Center. It was very worthwhile and educational.



The University of Akron

## **The University of Akron Institute of Polymer Engineering**

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To further discuss your needs, please contact Dr Lloyd Goettler at (330) 972-7467 [lagoett@uakron.edu](mailto:lagoett@uakron.edu) or Cameron Fraser at (330) 972-6008 [cfraser@uakron.edu](mailto:cfraser@uakron.edu)

#### **Analysis and Testing**

- x-ray
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- atomic force microscopy
- optical microscopy
- laser microscopy
- TGA
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- FT-IR
- DMA
- APA
- stress strain testing
- rheology
- biaxial stretching

#### **Polymer Processing**

- single-screw extruding
- twin-screw extruding
- film casting
- film blowing
- fiber spinning
- injection molding
- compression molding
- vacuum molding
- blow molding
- compounding

#### **Sample Preparation**

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- vacuum drying
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**[jepfeiffer@santoprene.com](mailto:jepfeiffer@santoprene.com)**

**phone 330-849-5097**

**fax 330-849-5589**

**For information: <http://www.4spe.org/conf/antec07/submissions.php>**

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## Akron Section Society of Plastics Engineers, Inc.

The Akron Society of Plastics Engineers Educational Foundation operates exclusively for the benefit of and to carry out the purposes of the Akron Section of the Society of Plastics Engineers, Inc., which is to promote scientific and engineering knowledge relating to plastics by making educational scholarship grants to deserving students in the field of plastics engineering and related subjects. The Organization is supported primarily by contributions from the Akron Society of Plastics Engineers, the Society's individual members and corporations like yours affiliated with the polymer industry.

Since the inception in 1988, the Akron Society of Plastics Engineers Educational Foundation has grown to its current position through the hard work of many volunteers and the generosity of the local business community. Over the twelve years that the foundation has been in existence, it has provided scholarships to over 250 young men and women, totaling in excess of \$200,000 to assist them in furthering their careers in the polymer industry.

Our goal is to continue to grow the assets of the Foundation in order to increase the number of scholarships awarded as well as the size of the awards, and to do so in perpetuity. In doing this, we hope to be able to contribute to the supply of well-trained individuals to support the growth of the polymer industry in the Northeast Ohio area today and well into the future.

When the Foundation began its fund raising activities in 1988, we offered those companies who contributed \$30,000 a scholarship in their name. To date we have three named scholarships – ***Omnova***, ***Rubbermaid*** and ***Goodyear***. We are asking your company to help with the growth of well-trained individuals in the local polymer industry. Please check below:

\$30,000 lump sum     \$10,000 / yr next 3 yrs.     \$5,000 / yr next 6 yrs.

Other \_\_\_\_\_

Our named scholarship donors are recognized at the annual Awards Night of the Akron Society of Plastics Engineers. We invite you to present your donation at our Awards Night, which will be scheduled in May.

We are looking forward to your support of this very worthwhile cause by your fine company. Please contact me at 330-849-5179 or e-mail at [robert.wegelin@santoprene.com](mailto:robert.wegelin@santoprene.com) with any questions. Thank you for your consideration.

Sincerely,  
Bob Wegelin, Chairman  
Akron Section Society of Plastics Engineers, Education Foundation Committee



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MEDIA	Newsletters	News & events about specific local & technical affiliations	<a href="http://www.4spe.org/communities/newsletters">www.4spe.org/communities/newsletters</a>
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	SPE Online	Your 24/7 source for Society information	<a href="http://www.4spe.org">www.4spe.org</a>
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## Applicant Information

**Name:**  
 \_\_\_\_\_  
 first last mi

**Applicant Type:**  
 Member  
 Student (must supply graduation date \_\_\_\_\_)

**Job Title:**  
 \_\_\_\_\_

**Company Name and Business Address (or College):**  
 company/college:  
 \_\_\_\_\_  
 address:  
 \_\_\_\_\_  
 address:  
 \_\_\_\_\_  
 city: state:  
 \_\_\_\_\_  
 zip: country:  
 \_\_\_\_\_

**Work Phone:** ( ) \_\_\_\_\_ **Fax:** ( ) \_\_\_\_\_

**Home Phone:** ( ) \_\_\_\_\_

**Email:** *used for society business only*  
 \_\_\_\_\_

**Home Address:** *(please provide)*  
 address:  
 \_\_\_\_\_  
 address:  
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**Preferred Mailing Address:**  
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<input type="checkbox"/> Injection Molding (D23)	<input type="checkbox"/> Thermoplastic Materials & Foams (D29)
<input type="checkbox"/> Marketing & Management (D37)	<input type="checkbox"/> Thermoset (D28)
<input type="checkbox"/> Medical Plastics (D36)	<input type="checkbox"/> Vinyl Plastics (D27)

**Additional Division(s)** \_\_\_\_\_

cost for each Additional Division

	<b>1 year</b>	<b>2 years</b>
US	\$6.00	\$12.00
Canada	\$9.00	\$18.00
Euros	€6.00	€12.00

**TOTAL** \_\_\_\_\_

CHECK  VISA  AMEX  MASTERCARD

card number \_\_\_\_\_

**PAYMENT MUST ACCOMPANY APPLICATION**  
**Sorry, No Purchase Orders Accepted**

expiration date (mm/yyyy) \_\_\_\_\_

Checks must be drawn on US or Canadian banks in US or Canadian funds.

Dues include a 1-year subscription to *Plastics Engineering* magazine.  
 SPE membership is valid for twelve months from the month your application is processed.  
 \*save over 10%

By signing below I agree to be governed by the Constitution and Bylaws of the Society and to promote the objectives of the Society. I certify that the statements made in the application are correct and I authorize SPE and its affiliates to use my phone, fax, address and email to contact me.

signature \_\_\_\_\_ date \_\_\_\_\_

recommended by member (optional) \_\_\_\_\_ Id # \_\_\_\_\_