

# TPM&F

THERMOPLASTIC MATERIALS AND FOAMS DIVISION



Communications  
Excellence Award



Pinnacle Award

## TPM&F SCOPE

The Thermoplastic Materials and Foams Division is organized to provide a focal point for the interchange of information relating to non-vinyl thermoplastic resins including fluoropolymers, polyamides, polyesters, polyolefins, polystyrenes, polyurethanes, their filled and/or reinforced products, and their foamable and foamed products. Its interests lie in stimulating the development of scientific and engineering knowledge. By encouraging participation between producers and consumers, it aims to provide information on new developments which shall encompass synthesis, characterization, fabrication, safe handling, application, serviceability, and marketing.

## CHAIRMAN'S MESSAGE

OCTOBER 2014



I would like to welcome all the existing members and new members for the continuous support to our division and activities throughout this year. Our board has been always active in terms of conveying the mission of the SPE in the education and training in the plastics industry and closing the gaps between academics and industries for prosperous collaboration in the field of thermoplastics and foams.

We have continued to excel in serving the plastics community during this year including: 1) increasing the education activities with new scholarships and outreach programs with schools; 2) commitment to set up the international TopCon FOAMS®2015 conference in a key international leading market in Kyoto, Japan; 3) growing the membership of the division and the board of directors and involving more professionals and students.

I would like to highlight the success of the FOAMS®2014 Conference that was just held in Iselin, New Jersey last September. The conference was planned to address key issues in foam research and development with a collection of groundbreaking presentations by leading researchers in foam industries and universities. It featured renowned speakers from academics and industries presenting technical papers on innovations in foam processing, characterization, micro and nano-cellular foams, and state-of-the-art foaming materials with a panel discussion on industrial applications of foaming technologies.

I need to take this opportunity to invite you all for our upcoming events of the division: the 2015 SPE International Polyolefins Conference in Houston, Texas on February 22- 25, 2015. The theme for the conference this year will

*continued on page 2*



The Society of Plastics Engineers  
13 Church Hill Road  
Newtown, CT 06470 USA

## BOARD OF DIRECTORS LISTING

**Ananda (Andy) Chatterjee (2015) HSM, FE**  
Chatterjee Consulting, LLC  
281-684-9247 phone  
am\_chatterjee@yahoo.com  
TPC - PO 2015

**Stéphane Costeux (2016)**  
The Dow Chemical Company  
989-636-6424 phone  
sccosteux@dow.com  
EDUCATION CHAIR

**Donna Davis (2016) HSM**  
ExxonMobil Chemical Co.  
281-834-2036 phone 281-834-2040 fax  
donna.s.davis@exxonmobil.com  
TPC - ANTEC®2013

**Dale Grove (2015) HSM**  
US Silica  
240-313-8860 phone  
grove.dale@hotmail.com  
TPC - ANTEC®2014

**Theresa Healy (2015)**  
Reedy International Corporation  
732-264-1777 phone 732-264-1189 fax  
thealy@reedyintl.com  
COMMUNICATION CHAIR

**Vipin Kumar (2016) FE**  
University of Washington  
206-543-5535 phone 206-685-8047 fax  
vkumar@u.washington.edu  
OUTSTANDING ACHIEVEMENT AWARD  
CHAIR

**Salvatore J. Monte (2016) HSM, FE**  
Kenrich Petrochemicals  
201-823-9000 phone 201-823-0691 fax  
sjmonte@4kenrich.com  
FOAMS®2014 CO-CHAIR

**Hani Naguib (2017)**  
University of Toronto  
416-978-7054 phone/fax  
naguib@mie.utoronto.ca  
CHAIRMAN

**Masahiro Ohshima (2017) FE**  
Kyoto University, Dept. of Chem Eng.  
81 75 383 2666 phone  
masahiro.ohshima@gmail.com  
INTERNATIONAL ACTIVITIES CHAIR

**Chul B. Park (2017) FE**  
University of Toronto  
416-978-3053 phone 416-978-0947 fax  
park@mie.utoronto.ca  
TUTORIAL CHAIR-FOAMS®2013

**Ajit Ranade (2016)**  
Sonoco Protective Solutions  
847-212-1117 mobile  
Ajit.Ranade@sonoco.com  
MEMBERSHIP CHAIRMAN

HSM: Honored Service Member FE: Fellow of the Society HLM: Honorary Lifetime Member

**N.S. Ramesh (2015) HSM, FE**  
Sealed Air Corporation  
972-522-4041 phone 972-647-1040 fax  
n.s.ramesh@sealedair.com

**Miguel Rodriguez-Perez (2015)**  
University of Valladolid  
34 983184035 phone 34 983423192 fax  
marrod@fmc.uva.es

**Ashutosh Sharma (2017) FE**  
Nike, Inc.  
(503) 671-1789 phone (503) 915-7620 mobile  
ashutosh.sharma@nike.com

**Henry Schirmer FE, HLM**  
BBS Corporation  
864-579-3058 phone 864-579-2126 fax  
hschirmer@att.net  
HONORARY LIFETIME MEMBER

**Raymond J. Shute (2017) HSM**  
CORTECH, LLC  
866-553-6689 X6000 phone  
rshute@cortechfoams.com  
NOMINATING CHAIR

**Lukas Stirnemann (2015)**  
Sulzer Chemtech Ltd.  
+41 52 262 6806 phone +41 52 262 0096 fax  
lukas.stirnemann@sulzer.com  
SECRETARY

**Perry Vadhar (2016) HSM**  
Sealed Air Corporation  
864-433-2086 phone 864-433-2560 fax  
perry.vadhar@sealedair.com  
COUNCILOR

**Xiaoxi Wang (2017)**  
Boeing Company  
425-404-1253 phone  
wang0213@gmail.com  
NEWSLETTER /COMMUNICATION CHAIR

**Maxwell Wingert (2016)**  
Procter & Gamble  
513-634-2832 phone  
mw4SPE@yahoo.com  
TREASURER, FOAMS®2014 CHAIR

**Gary Wilkes (2015)**  
Dart Container Corp.  
517-244 2196 phone  
517-525-0755 mobile  
gary.wilkes@dart.biz  
BEST PAPER CHAIR

**Changchun (Chad) Zeng (2017)**  
Florida State University  
850-410-6273 phone  
850-410-6342 fax  
zeng@eng.fsu.edu

## CHAIRMAN'S MESSAGE

*continued from page 1*

be “Four Decades of Advancing Polyolefin Technology” in which it will include topics on Current Trends in Markets, Technology and Investments in Polyolefins, Advances in Equipment and Processing of Polyolefins, Additives and modifications for Polyolefins, and Medical and Durable Applications. In addition, our Division will also have a number of sessions and technical papers on thermoplastics and foams themes presented in the SPE ANTEC® 2015 conference, March 23-25, 2015 held in Orlando, Florida.

Finally, I would like to invite all the members and non members to join our division and its activities, we are continuing to grow our network of professionals and specialists in this field and we would always welcome your help, support and feedback to achieve our missions.

Best regards.  
*Hani Naguib*  
TPM&F Chairman



## International Polyolefins Conference 2015

February 22 - February 25, 2015

Hilton Houston North, Houston, Texas.

[CLICK HERE](#) to Register Online

or get a printed registration form to fax.

*Papers are being solicited in areas including:*

**Trends Driving the Industry**

Recent Catalyst and Process Developments

**New Tools and Techniques in Innovation**

Recent Developments in Analysis & Characterization Methods

**Recent Developments in Modifiers & Additives, Including Nanofillers**

New Applications in Medical Applications

**Foam Technology Responding to Light-weighting and Source Reduction**

Polyolefin Developments in Building & Construction

**Polyolefins for 3D Printing**

## COUNCILOR'S REPORT



The Fall Council Meeting was held in New Orleans on Sept. 14 and 15. Following are some of the highlights from the meeting.

### Strategies for Sustainability of the Society -- Wim DeVos

The society is faced with many challenges including outdated website, competition from knowledge shared by other ways, smaller budget, weak value proposition, outdated business model, diverse member demographics, disconnect within leadership, and low volunteer availability.

### Proposed strategies include the following:

- ◆ Expand use of technology – website, mobile apps
- ◆ Expand the brand – videos, logos, global conference, create new group in Singapore
- ◆ Build Partnership – relationship with SPI, GPCA - gulf region chemical association, Plastics Europe, others
- ◆ Address generation gaps – image, mobility, private network for people in plastics, students activity board
- ◆ Develop and share resources – use of shared resources, centralize content
- ◆ Alternative revenue – advertisement on website, additional conferences bring more money
- ◆ Member engagement – conduct phone call campaign

### Demonstration of the new site – Scott Owens

**What is The Chain?** You can logon to the new site by using the follower URL: [community/4spe.org/home](http://community/4spe.org/home)  
The site includes Tech Talk, SPE Café, Places, Committee, Directory, Events, Engage, Resources, and Help. Scott encourages everyone to explore the new site and appreciate feedback before full launch by 2015.

### Microwebsite for Divisions – Wim DeVos

Division will have full control on their microwebsite. The new site will be embedded in the SPE's main website. It can be managed by you or with SPE or SPE can train somebody.

*Action item: Does TPM&F need to create microsite or we are happy with what we have?*

Cost is \$5000 plus \$500 per year for maintenance

The current TPM&F website may not have mobile connection integration. We need to check with the web developer whether they can offer this option. Contact person for the SPE's microwebsite is Tom Conklin.

### SPE Technical Library

Online library is now uploaded with various technical journals from 1998.

*Action Item: SPE need copies of your Topcon papers (e.g. FOAMS® Conference)*

### Financial Update – Wim DeVos

Financial results of 2013 were reviewed and new auditor had two remarks.

There was confusion between restricted and non-restricted funds that require proper reclassification. Finance committee has accepted the changes and it will be approved by next meeting. Current SPE membership remains at 2013 level. Total Foundation: \$108K vs. budget of \$74K. Good cash on hand

### Budget for 2015

There is a possibility SPE may lose money in Mumbai due to situation with market. SPE plans to receive all money for ANTEC® 2015 directly and not through SPI like last time. SPE is seeking support from Sections & Division to finance many new projects. Wim noted Sections and Divisions have over \$1million in their treasury and that

*continued on page 4*

is not used for the whole organization. Please think how it can be used to support the whole organization. There will be a measurement system (KPI) to check SPE's growth, members' retention rate, and attendance at each event. *Action Item: Board should discuss use of the TPM&F fund for SPE special projects.*

#### Branding SPE –Jamie Gomez

Other methods for branding SPE are through LinkedIn, Facebook, Twitter, mobile phone apps and multilingual website. Jamie informed from the SPE's website you can download approved logos, font colors, size etc. Motion was made to add red logo by Sandra McLeland.

#### SPI Governance Evolution

CEO of SPI (Bill Carteaux) was a guest speaker. He noted SPI has also gone through lot of transformation. They made significant changes after July 2009. The goal is to build a new business model and create special interest group like Bioplastics. SPE three strategic pillars are: advocating, educating, connecting SPE created smaller board to help with decision making process. He noted NPE has its own set of bylaws and nominating requirements.

#### Next Generation Advisory Board (NGAB) – Ashley Price

Purpose of NGAB is to meet needs of younger professionals. Bring benefits and values. The group has 20 people at the moment. There will be total seven new events at ANTEC® 2015. NGAB needs \$62,000 support these events. Detroit Section has already donated money to NGAB. *Action: TPM&F should consider some donation for the NGAB event.* There will be another Plastics Race at Orlando. This will be held indoors. New Retired Generation Board (RGB) proposal was made by Sandra McLeland. The RGB can also connect and guide NGAB.

#### Recommended Candidates for VP

Joe Golba (Extrusion), Barry Morris (Extrusion), Harrison Yu (Virginia Section)

**SIG** – special interest group – Petition for Reaction Injection Molding Technology.

#### Student activities at ANTEC® – Len Czuba

Paid for 122 student travels of which 105 were domestic and 17 international. The amount paid is \$250 domestic and \$350 international.

Paul Andersen reviewed several changes in Bylaws.

#### Old Business/New Business

EC/Staff should post documents 30 days in advance.

*Perry Vadhar*  
*TPM&F Division Councilor*

## TREASURER'S REPORT

September 9, 2014



### FINANCIAL SUMMARY:

- 1) Ending FY13-14 division balance is \$193,919.33, up by \$48,887.27 from the previous year end balance of \$145,032.06. This is account high since 2010 when I became treasurer.
  - a) The large gain is much higher than was budgeted for, largely due to the underspending for every category except scholarships. No money was spent on communications (website and newsletter), for the outstanding achievement award, or for the technical training seminars (webinars).
- 2) First half of FY actual transactions are: Income \$20,098.93; Expenses \$3,364.77.
- 3) We received no Polyolefins 2013 conference payout in FY12/13 because that check was mailed late. Thus, the division received both \$8,782.93 for PO2013 and \$12,591.22 for PO2014 during FY13/14.
- 4) The FY13-14 proposed budget is shown below. We will vote on this budget at our board meeting this week.

### INVESTMENT ACCOUNT UPDATE:

Between July 1, 2013 and June 30, 2014, the account managed by Constitution Advisory Group gained 12.8% from \$123,801.73 to \$139,674.96. As of Sept 5, the investment account value is now \$141,214.45.

### TPM&F FINANCIALS:

Note: An error occurred on my Feb 24, 2014 Treasurer's report because a \$250 ANTEC2013 best paper check proceeded on 9/30/2014 was accidentally omitted. The "best paper" category should have shown \$781.40 instead of the \$531.40. This also means the total account balance was shown as \$161,766.22 but it should have read \$161,516.22. The missing check has now been accounted for.

	FY 2012-13		FY2013-14		FY2014-15
	6/30/13 Actual	Revised budget	12/31/13 Actual	Budget	Proposed budget
<b>INFLOWS</b>					
Interest & Dividends	\$ -	\$ -	\$ -	\$ -	\$ -
CAG Investment Program Net Gain	\$ 9,788.20	\$ 4,000.00	\$ 15,873.23	\$ 4,000.00	\$ 5,000.00
Sponsorship	\$ 375.00	\$ 500.00	\$ -	\$ 500.00	\$ 500.00
Conference - FOAMS	\$ 5,672.05	\$ 5,000.00	\$ 11,669.06	\$ 5,000.00	\$ 6,000.00
Conference - Polyolefins	\$ -	\$ 5,000.00	\$ 21,374.15	\$ 16,783.00	\$ 9,000.00
Previous Year TopCon Reimburse	\$ 10,034.30	\$ 10,034.30	\$ 5,000.00	\$ 5,000.00	\$ -
SPE Rebate	\$ 4,616.11	\$ 1,000.00	\$ 2,912.19	\$ 4,000.00	\$ 3,200.00
<b>Total Inflows</b>	<b>\$ 30,485.66</b>	<b>\$ 25,534.30</b>	<b>\$ 56,828.63</b>	<b>\$ 35,283.00</b>	<b>\$ 23,700.00</b>
<b>OUTFLOWS</b>					
ANTEC Expenses	\$ 1,430.69	\$ 3,500.00	\$ 1,314.02	\$ 3,500.00	\$ 3,500.00
Best paper awards	\$ 42.36	\$ 1,700.00	\$ 781.40	\$ 2,700.00	\$ 2,700.00
Non-ANTEC Board Meeting	\$ 1,554.87	\$ 3,000.00	\$ 1,230.82	\$ 3,000.00	\$ 3,000.00
Councilor Travel	\$ 2,085.17	\$ 1,500.00	\$ 891.22	\$ 2,000.00	\$ 2,000.00
Educational Programs	\$ 5,000.00	\$ 6,000.00	\$ 2,500.00	\$ 6,000.00	\$ 3,500.00
Future Year TopCon Expenses	\$ 5,000.00	\$ 5,000.00	\$ -	\$ -	\$ -
General Office	\$ -	\$ 50.00	\$ 32.24	\$ 50.00	\$ 50.00
Communication	\$ 2,669.00	\$ 2,800.00	\$ -	\$ 2,800.00	\$ 4,000.00
Outstanding Achievement Award	\$ 2,021.87	\$ 9,000.00	\$ -	\$ 4,500.00	\$ 4,500.00
Scholarships/Grants	\$ 1,040.00	\$ 1,000.00	\$ 1,000.00	\$ 1,000.00	\$ 1,000.00
Technical Training Seminars	\$ -	\$ 1,500.00	\$ -	\$ 500.00	\$ 1,500.00
CAG Investment Program Net Loss	\$ -	\$ -	\$ -	\$ -	\$ -
Other expenses	\$ 3,112.31	\$ 1,000.00	\$ 191.66	\$ 1,000.00	\$ 1,000.00
<b>Total Outflows</b>	<b>\$ 23,956.27</b>	<b>\$ 36,050.00</b>	<b>\$ 7,941.36</b>	<b>\$ 27,550.00</b>	<b>\$ 26,750.00</b>
<b>Overall Surplus (deficit)</b>	<b>\$ 6,529.39</b>	<b>\$ (10,515.70)</b>	<b>\$ 48,887.27</b>	<b>\$ 7,733.00</b>	<b>\$ (3,050.00)</b>
<b>Budget Plan</b>	<b>\$ (10,515.70)</b>	<b>\$ (10,515.70)</b>	<b>\$ 7,733.00</b>	<b>\$ 7,733.00</b>	<b>\$ (3,050.00)</b>
<b>Variance from Budget</b>	<b>\$ 17,045.09</b>		<b>\$ 41,154.27</b>		
<b>Ending Account Balance</b>	<b>\$ 145,032.06</b>		<b>\$ 193,919.33</b>		

*Respectfully submitted by:  
Maxwell J. Wingert  
SPE TPM&F Treasurer*

## FOAMS® 2014 CONFERENCE PRESENTS CUTTING-EDGE RESEARCH

*The 12th annual international conference featured research in topics such as nanocellular and bio-based foams.*

“The future of foams is bright,” said Chul Park, professor at the University of Toronto, Canada, in the opening address of the SPE FOAMS® 2014 conference held in September in New Jersey. “A perception is that foams are for cost savings and are a ‘cheap’ material, but foams have many technical, functional applications and are also quite sustainable. They are not yet being used to their fullest advantage,” said Park. At the conference, Dr. Park was awarded the Thermoplastic Materials and Foams Division’s (TPM&F’s) Outstanding Achievement Award for his more than twenty years of contributions to the foam industry. He has nearly 800 publications in the field, including twenty patents, and has impacted the use of foams in a wide range of applications, including wood-plastics composites and rotomolding. Dr. Park presented some of his recent work using multiwalled carbon nanotube composite foam for energy storage and electromagnetic interference shielding devices. His was the first of many presentations at the conference that discussed research in technologies in development, such as nanocellular foams, which are characterized by nano-sized voids in nano-sized dispersed solids. While such nanocellular foams are likely decades away from commercialization, the researchers are dedicated to understanding the basic mechanisms in order to advance foam technology.

Bio-based polymer foams, including PLA and blends containing lignin, were discussed in several presentations. A paper on home-compostable, loose-fill foam, “Biodegradable PakNatural® loose fill foam from non-food renewable materials,” presented by N.S. Ramesh and John Wolf of Sealed Air Corporation, was the winner of the TPM&F division’s Best Paper Award. Other topics included microcellular foam processing and expanded polymer foam (e.g., EPP). Still other presentations described industrial applications and new developments in automotive, rail, and aviation applications for seating and load floors; the office furniture market; and space exploration. In addition, a panel discussion by five experts on foams technology brought a lively interplay between the panelists and the conference attendees on current challenges in the art of foaming polymers.

SPE has a strong interest in supporting students in polymer-related studies. The conference featured seven posters from students at universities in North America, Europe, and Asia. First and Second-place poster award winners, Belen Notario and Ester Laguna-Gutierrez, were both from the University of Valladolid, Spain. Notario was also the recipient of the annual TPM&F scholarship award, which is now given in honor of Michael Reedy, founder of Reedy International.

The 2014 event was sponsored by SPE’s TPM&F Division, the Palisades-New Jersey Section, and industrial sponsors Clariant, DMH Performance Additives, Imerys Talc, Kenrich Petrochemicals, Leistritz, Polyfil Additives Technology, Quantachrome Instruments, Reedy International, and Rowa. Over 100 people attended the conference, and 25 attended the 2-day pre-conference tutorial. In 2015, the 13th annual international FOAMS® conference will be held in Kyoto, Japan from September 8-11. The conference will be co-sponsored by the TPM&F Division, the Japan Section of SPE, and the Japan Society of Polymer Processing. Abstracts for the upcoming conference are due in April, 2015.

## FOAMS® 2014 RECAP



12<sup>th</sup> International Conference on  
Foam Materials & Technology



BY FOAMS® 2014 CHAIRMAN  
MAXWELL WINGERT



FOAMS® 2014

Tutorial: September 8-9  
Conference: September 10-11

ISELIN, NJ

As stated in the official conference summary, we delivered a strong 2-day technical conference program in addition to the one and a half day tutorial. We had 21 oral presentations, 3 plenary presentations, a (new) 30-minute sponsors' technology forum, and a (new) one-hour Q&A panel discussion. The final count was 103 conference attendees and 25 tutorial attendees. Surveys were filled out by 45 attendees. Masahiro Ohshima (FOAMS® 2015 chair) is tallying the results and will communicate the findings to us, but from flipping through them, I could tell that the vast majority of the attendees rated the conference overall as "good" or "excellent." The attendees included 6 regular sponsors and 3 gold sponsors.

Because of the new conference financial rules, it is possible for a conference to be a loss but still result in a payout to SPE HQ. Financially, this was the case because conference was an overall loss of \$3,145.07. Thus, the amount owed is increased by a payout to SPE HQ of \$3,350.40 (see attached financial summary) to \$6,495.47.

I personally apologize to both SPE groups that we had not anticipated the loss prior to the event. Versus FOAMS® 2011 (same hotel in NJ, total profit of \$17,036.18), gross revenue was up by \$5,070 (\$55,840 versus \$50,770). Versus FOAMS® 2013 (Seattle), gross revenue was down by \$20,385 (\$76,225 last year), almost exclusively due to additional attendees (138 conference and 49 tutorial). Versus FOAMS® 2011, expenses were up by \$25,251.25 (\$58,985.07 versus \$33,733.82), almost exclusively because the hotel bill went up by \$25,269.17 (\$43,537.27 versus \$18,268.10). Versus FOAMS® 2013, expenses were up by \$16,475.83 (\$42,509.24 last year). Last year's hotel bill was \$29,256.72.

I'd like to again thank all of the FOAMS® conference committee for their hard work in making the conference as successful as it was.

### RESULTS FOR FOAMS® 2014 CHAIR'S SURVEY

By FOAMS® 2015 Chair Masahiro Ohshima

90% of respondents rated the conference excellent and good. Some wanted to have longer coffee break. Judging from the survey results, most of the attendees were quite satisfied with the conference.

About a loss of money, since I might not be able to attend the telephone meeting, I would like to make some comments on and to have permission from board members. I would like to look with favor on Mr. Sal Monte's suggestion. The division should take care of all loss.

Looking at the financial overview of the foams 2014, it is easily to find that the hotel bill was heavy. For the Foams 2015, I chose the auditorium of Kyoto University as the conference venue. Thus, the venue cost will be less than 10,000 US\$. Therefore, I would like to keep the registration fee and sponsorship fee as it is or even lower for the Foams 2015. Please admit the foams 2015 as an exceptional example for future budget strategy.

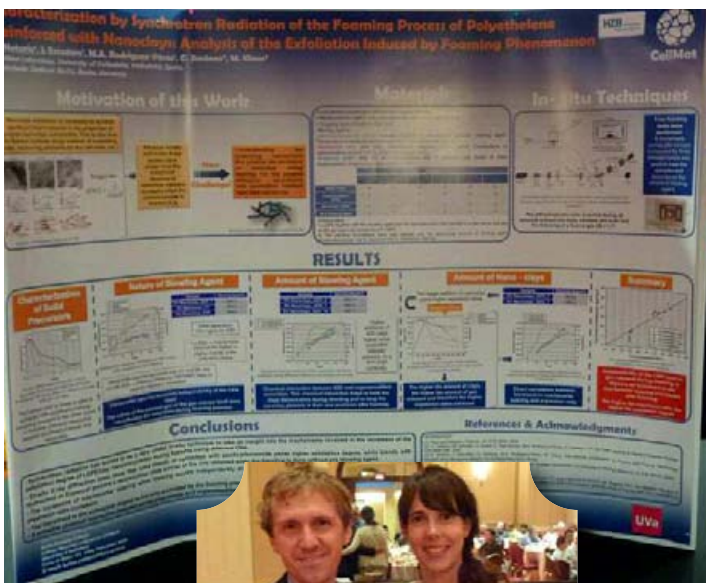
*pictures and captions courtesy of the Palisades-New Jersey Section.*



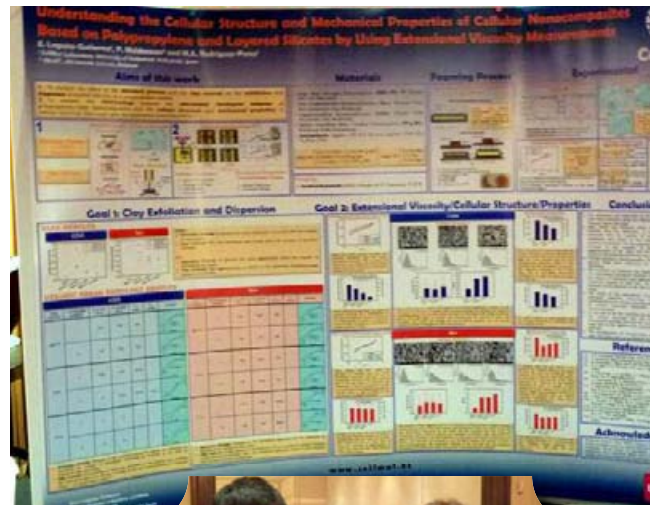
Many thanks to conference chair Max Wingert and also to SPE headquarters (Kathy Schacht, right) for helping with the conference registration.



Hani Naguib (left) and Vipin Kumar (right) present Chul Park (center) with the Thermoplastic Materials and Foams Division's (TPM&F's) Outstanding Achievement Award,



Belen Notario from the University of Valladolid, Spain won first prize in the student poster contest and was also the recipient of the annual TPM&F scholarship award.



Ester Laguna-Gutierrez from the University of Valladolid, Spain won 2nd prize in the student poster contest.



Sal Monte was Conference Co-chair and Theresa Healy was the Sponsorship Chair.



## BEST PAPER AWARD FOR THE SPE FOAMS® 2014 CONFERENCE

September 9, 2014

The winner of Best Paper Award for the SPE Foams® 2014 Conference is:

*“Biodegradable PakNatural® Loose Fill Foam from Non-Food Renewable Materials”*

Authored by **N. S. Ramesh** Senior Engineering Fellow, Product Care R&D, Sealed Air Corporation, Grand Prairie, TX and **John Wolf**, Global VP, Product Care, Packaging System, Sealed Air Corporation, Saddle Brook, NJ.

*Gary Wilkes*

*TPM&F Best Paper Chair*

## EDUCATION – 2014 SPE TPM&F SCHOLARSHIP

*The results are in, and we have a unanimous winner for the \$2,500 scholarship!*

**Allison Ecker**, from Batavia OH, who will pursue both B.S. in Chemical Eng. And a M.S. in Materials Eng. at the University of Dayton in the coming year, was ranked first by all the judges. She has outstanding credentials and a keen interest in plastics. And a GPA of 3.995! I am sure she will make good use of the scholarship!

**Paul Woodson**, attending Kettering University in Flint, MI this year, was a very deserving second.

Thanks to those who volunteered to rate the applications for the SPE Foundation TPM&F scholarship. We had 7 very good undergrad candidates (all seniors in 2014-15). Applications were rated according to the following criteria:



- Honors/ Activities/ Achievements
- Financial Need
- Employment/Experience in Plastics
- Career Interest in Plastics
- Recommendation letters #1, 2 and 3
- Potential for Success

*Stéphane Costeux*

*TPM&F Education Chair*

# THERMOPLASTIC MATERIALS AND FOAMS DIVISION BOARD MEETING MINUTES

*Meeting Date: September 09, 2014*

*Location: FOAMS® 2014 Conference, Iselin, NJ*

## ATTENDANCE

**Attending the BOD meeting in person:** Hani Naguib, Sal Monte, Miguel Rodriguez-Perez, Max Wingert, Chul Park, Kathy Schacht (SPE HQ), N.S. Ramesh, Masahiro Ohshima, Stephane Costeaux, Ernesto Di Maio, Ajit Ranade, Theresa Healy, and Vipin Kumar

**Joined by phone:** Perry Vadhar, Ray Shute, Xiaoxi Wang, Donna Davis, Andy Chatterjee, and Gary Wilkes.

*Chairman Hani Naguib called the meeting to order at 7:00pm*

## CHAIR REPORT — HANI NAGUIB

Hani thanked everyone for all their support for this FOAMS® conference.

## SECRETARY'S REPORT — LUKAS STIRNEMANN

Motion was passed to approve the Minutes from the BOD meeting on April 27, 2014.

## FOAMS®2014 REPORT — SAL MONTE, MAXWELL WINGERT, AJIT RANADE, CHUL PARK, THERESA HEALY

There were approximately 30 people for the Tutorial (3 Plenary Speakers and 21 papers, and 7 posters. Thanks to the NJ local section for all the support. Attendee count is approximately 120 but we will not have those numbers until the conference ends. There are 9 sponsors total (3 Gold and 6 exhibitors). Thanks to all the team for FOAMS® 2014.

## FOAMS® 2014 SCHOLARSHIPS — STEPHANE COSTEAUX, MAX WINGERT

TPM&F FOAMS® 2014 Michael Reedy Scholarships: Reedy International and the TPM&F Division will each contribute \$500 towards two scholarships for students attending the FOAMS® 2014 conference. This year we received 3 applications, which were evaluated by a jury composed of Max Wingert, Changchun Zeng, Mike Fisch, Giorgiana Giancola and Stéphane Costeux. The 2014 winners, whose names will officially be announced during the award luncheon on Wednesday, are: Belén Notario, 2nd year Ph.D. candidate at the University of Valladolid, Spain and Mehdi Saniei, 4th year Ph.D. candidate at the University of Toronto, Canada

## FOAMS® 2014 BEST PAPER AWARD — GARY WILKES

Review requests of the 20 papers sent to seven individuals with Excel spreadsheet attached for Scoring in four



categories: Novelty, Technical, Usefulness, and Clarity. Because reviewers were asked not to rank colleagues or co-authors, an averaged score rather than a total score is computed for ranking. Papers with top five overall scores will be identified and utilized in final rating from select individuals during the presentations. Gary will send the criteria form out to reviewers. Ideally, he would like 5 reviewers and they do not necessarily have to be on the Board.

## FOAMS® 2014 BUDGET— MAX WINGERT

No update as of now because we do not have all the expenses in. Max will update once the conference is over and we will have all the financials available.

## FOAMS®2015 REPORT —MASAHIRO OHSHIMA

FOAMS® 2015 will take place in Kyoto, Japan on September 8 & 9 or September 10 & 11. The dates are still being decided. Professor Ohshima will run this conference and will update the information once confirmed.

## PO 2015 TOPCON REPORT — DONNA DAVIS

Nominations for Technical Chair are needed. There is a lot of interest. There will be a session for foams for light weighting. Stephane will help Donna get papers. Gary Wilkes will help too. Ajit offered to help with the conference while in Houston. If anyone is interested in presenting a paper, please send Donna the abstract.

*continued on page 11*

**COMMUNICATION CHAIR REPORT —  
THERESA HEALY**

We are working to improve our division's website and keep it updated. Please submit any suggestions that you have so it can be updated. SPE HQ has a newer website and we want to make ours as user friendly and informative as possible. The information on the FOAMS® conference is up to date along with the sponsors. We also listed the PO 2015 information under Events. As we get exhibitors/sponsors for that conference, we can put the logos on this website too. We need the BOD list of members updated. LINKED-IN TPM&F SITE— Since our last meeting, we now have over 580 members and some new interesting topics. Please feel free to post a technical question or info on webinars or anything of value to our members and others related to our field.

**TREASURER'S REPORT — MAX WINGERT**

According to the report, we have underspent in every category. We need Xiaoxi to contact Peacock Graphics to find out why there were no bills for the newsletter last fiscal year. We discussed the proposed budget that was circulated to the board prior to meeting. After a short discussion, Max made a motion to accept the submitted budget with two changes: 1.) Adjust the scholarship category to \$3500 and 2.) Adjust the educational programs category to \$6000. The motion passed.

*Financial Summary:*

Ending FY13-14 division balance is \$193,919.33, up by \$48,887.27 from the previous year end balance of \$145,032.06. This is account high since 2010 when I became treasurer. The large gain is much higher than was budgeted for, largely due to the underspending for every category except scholarships. No money was spent on communications (website and newsletter), for the outstanding achievement award, or for the technical training seminars (webinars). First half of FY actual transactions are: Income \$20,098.93; Expenses \$3,364.77. We received no Polyolefins 2013 conference payout in FY12/13 because that check was mailed late. Thus, the division received both \$8,782.93 for PO2013 and \$12,591.22 for PO2014 during FY13/14. The FY13-14 proposed budget is shown below. We will vote on this budget at our board meeting this week. *Investment Account Update:*

Between July 1, 2013 and June 30, 2014, the account managed by Constitution Advisory Group gained 12.8% from \$123,801.73 to \$139,674.96.

Full reports of holdings and performance for the last two quarters of FY13/14 are attached here:

As of Sept 5, the investment account value is now \$141,214.45.

*TPM&F Financials:*

Note: An error occurred on my Feb 24, 2014 Treasurer's report because a \$250 ANTEC®2013 best paper check proceeded on 9/30/2014 was accidentally omitted. The "best paper" category should have shown \$781.40 instead of the \$531.40. This also means the total account balance was shown as \$161,766.22 but it should have read \$161,516.22. The missing check has now been accounted for.

**EDUCATION CHAIR REPORT — STÉPHANE  
COSTEUX**

Objectives for 2014:

The objectives remain as defined by the previous chair (Hani Naguib). Educational outreach initiatives, Student scholarships, Webinar series.

Progress since April BOD meeting:

1- Educational outreach initiatives

Plastivan: The TPM&F BOD has agreed in June 2014 to sponsor a Plastivan event by the end of 2014. Xiaoxi Wang and Al Smith (Pacific Northwest section) contacted the Plastivan organizers to estimate a budget. The cost is \$1650 per day. Each day the Plastivan can cover one school and teach 5 classes (max. 40 students per class).

The initial proposal was a 3 day event for 3 schools in Seattle area. Plastivan organizers asked for 5 days, and a cost of \$7000 was negotiated (\$1400 per day) + misc. expenses.

The sponsorship level from the BOD will be \$3500, and the PNW section will cover the rest of the cost. Details will be finalized in the coming month. Eric Teoh will take the lead in contacting participating schools in the Seattle area.

Other outreach activities: Perry Vadhar attended the ACS/Polymer Material Science & Engineering Division (PMSE) Student Chapter meeting organized with the departments of Chemistry and Chemical Engineering at the University of South Carolina, Columbia on Aug. 22, 2014. There were representatives from many other companies including BASF, PPG, Invista, and Sealed Air. Perry emphasized benefits of becoming a SPE member to the students and also provided applications for becoming new member.

## 2- Student scholarship

TPM&F FOAMS®2014 Michael Reedy Scholarships: Reedy International and the TPM&F Division will each contribute \$500 towards two scholarships for students attending the FOAMS 2014 conference. This year we received 3 applications, which were evaluated by a jury composed of Max Wingert, Changchun Zeng, Mike Fisch, Giorgiana Giancola and Stéphane Costeux.

The 2014 winners, whose names will officially be announced during the award luncheon on Wednesday, are:

Belén Notario, 2nd year PhD candidate at the University of Valladolid, Spain

Mehdi Saniei, 4th year Ph.D. candidate at the University of Toronto, Canada

SPE TPM&F Scholarship: The SPE Foundation special scholarship program is now administered by Gene Havel (following Gail Bristol's recent retirement). SPE received 7 applications for the 2014 SPE TPM&F scholarship (one award of \$2,500). A process will be put in place to review the applications and select a winner in the next 4 weeks.

### 3- WEBINAR SERIES.

*3-part webinar on foams was organized in August 2014*

Part 1 (Aug. 12th): Stéphane Costeux –  
“Nanocellular Foams”

Part 2 (Aug. 19th): Hani Naguib –  
“Bio and Sustainable Foams”

Part 3 (Aug. 26th): Miguel Rodriguez-Perez –  
“Cellular Nanocomposites”

Scott Marko and Barbara Spain (SPE) advertised and facilitated the sessions. Overall, things went well with the organization and the timing of advertising. [Some issues to be addressed next time: wrong webinar time in some of the earlier advertising; issues with Hani slides not advancing properly – need to test connections ahead of time]. 20 attendees/companies signed up for the session.

Cost for the session was \$175 for SPE members, and \$140 for TPM&F members thanks to a 20% discount sponsored by the TPM&F Division. 8 members took advantage of the discount.

The next seminar series will be organized in early 2015, before the Polyolefins conference. Suggestions of potential speakers are welcome.

## ANTEC® 2014 — DALE GROVE

ANTEC® 2015 (Orlando, FL) March 23-25, 2015.

This will be in conjunction with the NPE.

### Program Schedule

Final Program Online: Beginning -February

Advance Program Online: Beginning -January

Advance Program in PE Mag: January Edition

### Paper Deadlines

Final Paper Revision Deadline: January 16, 2015

Student Poster Submission Deadline: February 27, 2015

Final Paper Acceptance Deadline: December 5, 2014

Student – Deadline for Listing in AP: December 5, 2014

Matrix & Session Meeting: November 6, 2014-1 pmEST

Paper Review Deadline: October 24, 2014

Student Call for Posters: October 1, 2014

Paper Submission Deadline: September 26, 2014 (no extensions will be granted)

TPC Training: TBD

Call for Papers: COMPLETE

A call for papers has gone out.

Scheduling will be very tight this year. Reviews will have to be performed much earlier due to the earlier NPE/ANTEC® timing.

Please let me know if there are any board members that have a valid reason for not performing reviews; otherwise, it will be assumed that all board members will participate in the review process. By spreading out the review process, it makes it easier on all.

## NEWSLETTER CHAIR REPORT —XIAOXI WANG

Nothing has changed and the winning papers will be published in the next newsletter. Xiaoxi is also working with the Plastivan Event.

## TPM&F BY-LAWS — RAY SHUTE

Attached are the bylaws presented by Ray Shute. A motion was approved to accept these by-laws as presented in the report.

## OUTSTANDING ACHIEVEMENT AWARD CHAIR REPORT — VIPIN KUMAR

The OAA for 2014 is a surprise. We will announce at the conference. We need some candidates for next year.

## HSM/FELLOWS NOMINATIONS — DONNA DAVIS

Donna stated that she would like to nominate Hani for fellow. There was no HSM this year.

*continued on page 13*

## COUNCILOR'S REPORT — PERRY VADHAR

Fall Council meeting will be held on Sept. 13 and 14 in New Orleans. Perry plans to attend the meeting in person. There is no election taking place at the Fall Council meeting. The elections for Society officers will take place during the Council meeting at ANTEC®2015 in Orlando, Florida, USA. Every other year, the Sections Committee or the Divisions Committee, in rotation, may recommend candidates for a three-year term as Vice President of the Society. This year, the Divisions Committee is asked to recommend no more than three candidates to the Nominating Committee. Perry will issue a report after the meeting.

## MEMBERSHIP CHAIR REPORT — AJIT RANADE

There was an overall comment to increase membership. Locally, we should work with the Technical & Community Colleges. There is a plastic course that is being put together and that is being worked on with the Detroit Section. Ajit mentioned that we lost about 151 members (80% lost in the last 3 months). Kathy mentioned that this is common in June and let's see what the numbers are in February. She suggested to send emails out to the lost members to try and get them to renew.

## INTERNATIONAL ACTIVITIES REPORT — MIGUEL PEREZ AND LUKAS STIRNEMANN

Nothing new to report.

## NEW/OLD BUSINESS

FOAMS® scholarships, Future Foams Conference-The travel scholarship should be separate from the other scholarship. Every third year FOAMS® will be held outside of the US. FOAMS®2015 will be in Japan and then possibly FOAMS®2016 will be in Charlotte or on the west coast. It is in NJ every three years. There is also an open position for Vice Chair of the Division. Please send in your nominations to Hani. This should be in place by next July.

## NEXT BOARD MEETING

February 2015-Houston, TX

**Meeting adjourned** — Meeting was adjourned at 9:20pm

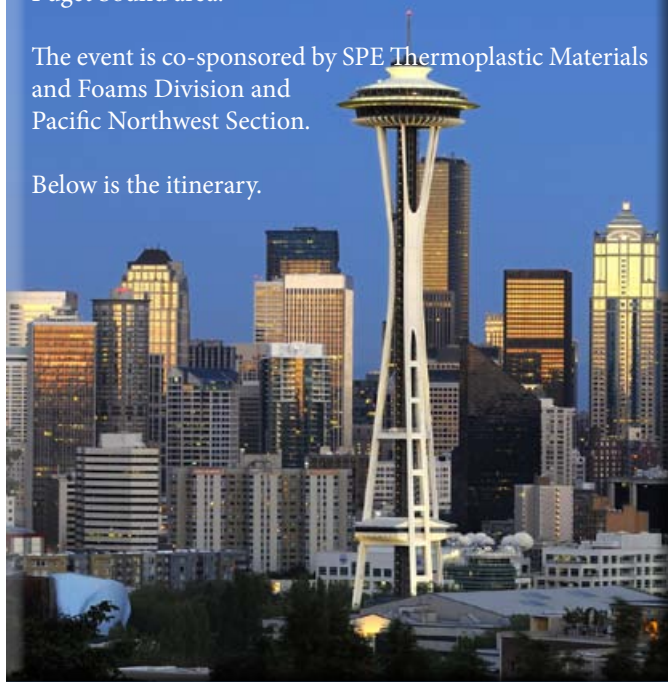
Minutes recorded by Gary R. Wilkes

## PLASTIVAN® PROGRAM IN SEATTLE AREA

SPE PNW Section and TPM&F Division are glad to announce that the PlastiVan® Program, a well-known education program on plastics, will visit Seattle area in the week of November 10th, 2014. The program will enter four middle schools and educate up to 800 students in the Puget Sound area.

The event is co-sponsored by SPE Thermoplastic Materials and Foams Division and Pacific Northwest Section.

Below is the itinerary.



<b>NOVEMBER 10TH:</b>	<b>MARYSVILLE MIDDLE SCHOOL (MARYVILLE, WA)</b>
<b>NOVEMBER 11TH:</b>	<b>NO SCHOOL</b>
<b>NOVEMBER 12TH:</b>	<b>BELLEVUE HIGH SCHOOL (BELLEVUE, WA, TENTATIVE)</b>
<b>NOVEMBER 13TH:</b>	<b>CEDARCREST MIDDLE SCHOOL (MARYVILLE, WA)</b>
<b>NOVEMBER 14TH:</b>	<b>KAMIAKIN JUNIOR HIGH (KIRKLAND, WA)</b>

*For more information about the PlastiVan® Program, contact Marjorie Weiner at: [mweiner@4spe.org](mailto:mweiner@4spe.org) or +1 978-618-5496.*

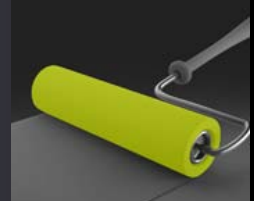
## BACKGROUND FOR THE PLASTIVAN PROGRAM

The PlastiVan® Program is a great way to WOW and excite young people about the science and the vast opportunities the plastics industry has to offer. The PlastiVan program travels to schools and companies throughout North America, educating people of all ages about plastics chemistry, history, processing, manufacturing, sustainability and applications.

## COMMUNICATION CHAIR REPORT

by Theresa Healy

September, 2014



### COMMUNICATION CHAIR UPDATE:

We are working to improve our division's website and keep it updated. Please submit any suggestions that you have so it can be updated. SPE HQ has a newer website and we want to make ours as user friendly and informative as possible. The information on the FOAMS® conference is up to date along with the sponsors. We also listed the PO 2015 information under Events. As we get exhibitors/sponsors for that conference, we can put the logos on this website too. We need the BOD list of members updated.

### TPM&F WEBSITE — LINKED-IN:



Since our last meeting, we now have over 580 members and some new interesting topics. Please feel free to post a technical question or info on webinars or anything of value to our members and others related to our field.

[www.SPETPMF.com](http://www.SPETPMF.com)



### ANTEC® ORLANDO @NPE2015

March 23 - 25, 2015

### SAVE THE DATE!

The Society of Plastics Engineers will once again co-locate our world renowned technical conference ANTEC®, with SPI's NPE2015 at the Orange County Convention Center in Orlando, Florida USA

Barbara Spain, Events Program Manager

[bspain@4spe.org](mailto:bspain@4spe.org)

+1 508.338.2646

**REEDY**  
INTERNATIONAL

9301-A Forsyth Park Drive  
Charlotte NC, 28273

980.819.6930

[sales@reedyintl.com](mailto:sales@reedyintl.com)

[www.reedyintl.com](http://www.reedyintl.com)

Committed to the Future of Plastics

## **DIVISION BYLAWS**

### DIVISION BYLAWS

#### ARTICLE I

##### NAME

The name of the organization shall be the Thermoplastic Materials and Foams Division of the Society of Plastics Engineers, Inc.

#### ARTICLE II

##### PURPOSES

The purpose of the Division is to provide and promote education and science in the field of plastics engineering within the area of non-vinyl thermoplastic materials and foams.

#### ARTICLE III

##### MEMBERSHIP

Those Members of the Society of Plastics Engineers who request membership in the division shall be members of the division. Members shall maintain the same grade of membership as assigned by the Society of Plastics Engineers. Member grades consist of: Distinguished Members, Fellows of the Society, Honored Service Members, Honorary Members, Senior Members, Members, Affiliate Members, Student Members, and Student Affiliate Members.

#### ARTICLE IV

##### GOVERNING AUTHORITY

The Division is incorporated under and shall be governed by the laws of the State of Connecticut.

#### ARTICLE V

##### BOARD OF DIRECTORS

Section 1. Functions. Management of the Division is vested in a Board of Directors that meets at least three times a year either physically, by phone or electronically. The Board is responsible for the following:

- (a) Establishment and amendment of Division Rules and Operating Procedures
- (b) Adoption of the annual budget
- (c) Election of Division Officers
- (d) Election of interim Councilor and Directors
- (e) Authorization requests for Technical Conferences of the Society of Plastics Engineers (“SPE” or the “Society”)
- (f) Authorization of special fund raising activities
- (g) Approval of appointments of Committee Chairs
- (h) Approval of annual audit and financial reports

*continued on page 16*

Section 2. Board Composition. The Division Board of Directors is composed of 21 elected Directors, Division Officers, a Council Representative, and Past-Chair. Their terms of office are as follows:

- (a) 21 elected Directors - three years
- (b) Division Officers
  - Chair - two years
  - Chair-elect - two years
  - Secretary - two years
  - Treasurer - two years
- (c) Councilor (Council Representative) - three years
- (d) Past-Chair - two years

All terms shall commence July 1, except that of Councilor, which shall commence after the annual business meeting.

Section 3. Vacating Board Positions. A Division Board of Directors will declare a position vacated upon receipt of a resignation received in writing and accepted by the Chair. Also the Board may declare a seat vacant whenever a Board Member fails to meet eligibility requirements, fails to perform duties, or for any other causes the Board justifies for removal.

Directors and Officers failing to attend two consecutive Board meetings will be considered to have resigned their elected positions, except for excused absences. A seat is considered vacant only after a two-third-majority vote of all Board Members.

Section 4. Interim Elections. When a vacancy occurs, the Board will elect an interim Officer, Director, or Councilor to complete the fiscal year, or complete the term of office if more than one year remains.

Section 5. Meetings. Meetings of Board of Directors are called by the Chair and must be held at least three times each year. A quorum will exist when a majority (51 %+ ) of Board Members are present. Written notice and the Order of Business (agenda) is prepared by the Chair and Secretary of the Division, and must be sent to all Board Members and Committee Chairs at least one week prior to each meeting.

Section 6. Duties of Officers. In addition to responsibilities as a Division Director and other duties outlined herein, the Chair or Division Rules and Operating Procedures may delegate additional duties to be performed by an Officer of the Division.

Section 7. Division Executive Committee. A Division Board may authorize an Executive Committee to act on its behalf between meetings and to serve as a steering committee.

- (a) Composition - The Executive Committee of the Division will consist of the Officers, Past-Chair, and Councilor.
- (b) Limitation of Powers - The Executive Committee is subject to the Division, Rules and Operating Procedures, if any. Any action taken must be in harmony with the actions of the Board. Only expenditures provided for in the budget and approved by the Board are allowed.
- (c) Minutes - Minutes of each Executive Committee meeting will be distributed promptly to all Board members. Upon the request of three or more Board members any committee action must be submitted to the Board for consideration.
- (d) Meetings - Meeting locations and times are designated by the Division Chair. A meeting



can be called upon the request of any three members of the Executive Committee and at least a seven-day notice must be given prior to each meeting. However, this notice can be waived provided at least three-fourths of the Executive Committee agrees. A quorum will consist of a simple majority. No proxies may be accepted.

## ARTICLE VI

### DIVISION ELECTIONS

Section 1. Division Elections. At the close of each fiscal year, the terms of one-third of the total number of elected Directors will expire. Directors are elected at the same time as the Councilor. They are elected by secret mail ballot to the Division membership. Division Officers are elected annually at the Society of Plastics Engineers Annual Technical Conference (ANTEC®) board meeting of the Division and no later than June 1st.

Section 2. Division Nominating Committee. The committee will nominate eligible members for each vacancy for the next fiscal year and present its nominations to the Board by April 15th. Nominations are required every two years for Officers, every year for Directors, and every three years for Councilor.

Section 3. Eligibility of Members to Serve. Every Board Member must be a member of the Society of voting grade in good standing at the time of nomination, election and during their term. To be eligible for election as a Division Officer, a candidate must be a Division Director at the time of the nomination. The Councilor may not serve as a Division Officer during their term as Councilor. Certain members are restricted or have limited eligibility to serve on the Board of Directors.

- (a) The following are eligible to vote and to hold Division office: Members, Senior Members, Fellows, Honored Service Members and Distinguished Members.
- (b) The following are not eligible to vote and hold office: Students, Student Affiliates and Honorary Members.

Section 4. Election of Officers. By April 15th the Division Nominating Committee will nominate from the eligible Directors at least one but no more than three candidates for the positions of: Chair, Chair-Elect, Secretary, Treasurer, and Councilor.

The criteria for a candidate for Division officer position eligibility are as follows:

- (a) be a member in good standing,
- (b) must have indicated a willingness and ability to serve, and
- (c) be a member of the Division Board of Directors at the time of nomination.

Directors completing their terms in fiscal year can be nominated, Nominations can be made by any Director if accepted, seconded, and the nominee gives consent.

The Board of Directors will meet in April or May to elect officers for the next fiscal year.

Section 5. Election Procedure for Division Officers. If more than one nomination for an office is made, election will be by secret ballot. Election to office is determined by a simple majority vote, no proxy ballots are permitted. If there are more than two candidates, and the first ballot does not produce a majority vote, then the

candidate receiving the least votes will be dropped from the ballot. The ballot will be repeated until one candidate receives the majority vote.

Officers are elected in the following order: Chair, Chair-Elect, Secretary, and Treasurer.

Section 6 Election of Councilor. The Division Nominating Committee will nominate at least two eligible members of the Division for the office of Councilor in the year the current Councilor's three-year term expires or in the event of a vacancy more than one year before the Councilor's term expires.

- (a) Nominations will be considered at a meeting of the Board of Directors. Nominees may be accepted or rejected by a majority vote. Nominations may be made from the floor, if seconded and if the nominee gives consent.
- (b) The Board will select at least two, but no more than three candidates.
- (c) A Councilor is only allowed to serve two consecutive terms. A Councilor who has served more than 1-1/2 (4-1/2 years) consecutive terms is not eligible for re-election for another consecutive term of office.

Section 7. Election of Directors. Nominations are carried out at the time and in the manner prescribed for Councilor. At the close of each fiscal year, one-third of the total elected Directors will retire. On the ballot the names of candidates are listed in a random manner (determined by drawing of lots). Voters will be instructed to "vote up to" (number of positions vacant), and spaces for the same number of write-in-votes will be provided.

Section 8. Election Procedure Councilors and Directors. Councilors and directors shall be elected as follows:

- (a) Consent is given by nominee.
- (b) Ballot is sent to all voting members affiliated within the Division.
- (c) Ballots are returned and counted with the highest number of votes winning.
- (d) In the case of a tie, of the candidates receiving the least votes, the winning officer will be selected by a flip of the coin by the head of the nominating committee.

Section 9. Balloting for Councilor and Directors. Between March 1st and April 15th, the Nominating Chair (through the SPE webmaster) will send ballots to all voting members affiliated with the Division, preferably by e-mail or first class mail. A ballot will include the following:

- (a) Name of the Division
- (b) Separate election information for Councilor and Directors
- (c) For each office, the ballot will provide the following:
  - instructions on how many candidates to vote for,
  - names of all candidates,
  - Candidate statements, including education, experience, SPE activities, reason for running
  - space to vote for write-in candidate(s)
- (d) Notice of when the ballot will close, (preferably two weeks, (14 days) after the ballot was e-mailed (or sent).

Section 10. Counting of Ballots for Councilors and Directors. The Nominating Chair will verify that each ballot returned is that of a voting-class-member (member in good standing). All valid ballots will be counted. The candidates receiving the highest number of votes will be elected. The results will be reported to the Chair and the winning candidates prior to the ANTEC® board meeting. All results will also be reported to the Board at the ANTEC® board meeting. (Voting results will be retained by the Nominating Committee for at least 90 days, and will be delivered to the Board for examination if so ordered)

## ARTICLE VII

### BOARD POSITIONS

The members of the Board of Directors and Officers shall fulfill those duties prescribed by the laws of the State of Connecticut.

## ARTICLE VIII

### FISCAL YEAR

The fiscal year of the Division shall be July 1 to June 30 of the following year.

## ARTICLE IX

### COMMITTEES

The Division shall establish and operate committees as described in the Society's Division Procedures Manual.

## ARTICLE X

### SEPARATE LEGAL ENTITIES

The Division is a legal entity, separate from the Society. The Division is not responsible for the debts or obligations of the Society and the Society is not responsible for the debts or obligations of the Division.

## ARTICLE XII

### AMENDMENTS

These bylaws may be amended by the Board of Directors with the approval of the Council of the Society.