



**SOCIETY OF PLASTICS ENGINEERS – CLEVELAND SECTION**

March 2016 Vol. 59 No. 6

[www.specleveland.org](http://www.specleveland.org)

Editor: [Bruce Bille](#)

## Upcoming Meeting: Monday, March 14, 2016

### Plastics in Solar Power Generation Presentation and Tour

Presented by Professor Roger French

#### **Location:**

Solar Durability and Lifetime Extension (SDLE) Center  
Case Western Reserve University (CWRU) Nord Hall, Room 356  
If arriving by car, please park in the Veale Parking Garage, unless  
you have a CWRU parking permit. Veale Parking Garage address:  
[2158 Adelbert Rd](#)  
[Cleveland, OH 44106](#)

#### **Quick Clicks:**

[Directions to the Meeting](#)  
[About the Program](#)  
[About the Presenter](#)  
[SPE-Cleveland Website](#)

#### **Agenda:**

- 4:30 Registration will be in Nord Hall, Room 356. Please be ready to start the tours promptly at 5:00. It may not be possible to accommodate late arrivals. Please allow for rush hour traffic.
- 5:00 Guided tours of SDLE labs and Sun Farm. A shuttle bus from Nord Hall to the Sun Farm will be provided. The attendees will be split into groups alternating between the two tours. Please do not drive to the Sun Farm because there is no public parking there.
- 7:00 Self-serve dinner buffet in Nord 356.
- 7:30 Presentation in Nord 356

**Price:** Members/Guest - \$25 / Retired - \$20 / Student - \$5. The cost of parking is \$10 for 4 to 24 hours, and varying amounts between \$2 and \$9 for less than 4 hours.

#### **Reservations:**

Reservation and payment must be received in the mail no later than Thursday March 10, 2016. Please send a check made out to SPE Cleveland Section to

Dan Crist  
PO Box 845  
Brunswick, OH 44212

Reservations can also be made by e-mail at [mail@cmd-tip.com](mailto:mail@cmd-tip.com) or by phone at 440-227-5424, but there will be a \$5 surcharge for payment not received by the March 10 deadline.

Because of limited capacity, attendance cannot be guaranteed for late reservations.

## Directions to March 14<sup>th</sup> Meeting

### Directions from Cleveland:

Take Chester Ave (Rte 322) East until it dead-ends into Euclid or simply take Euclid Ave (Rte 20) East from downtown Cleveland.

After passing CWRU on your right side, take the first right (Adelbert Rd).

Keep right on Adelbert Road before the left bend onto Circle Drive.

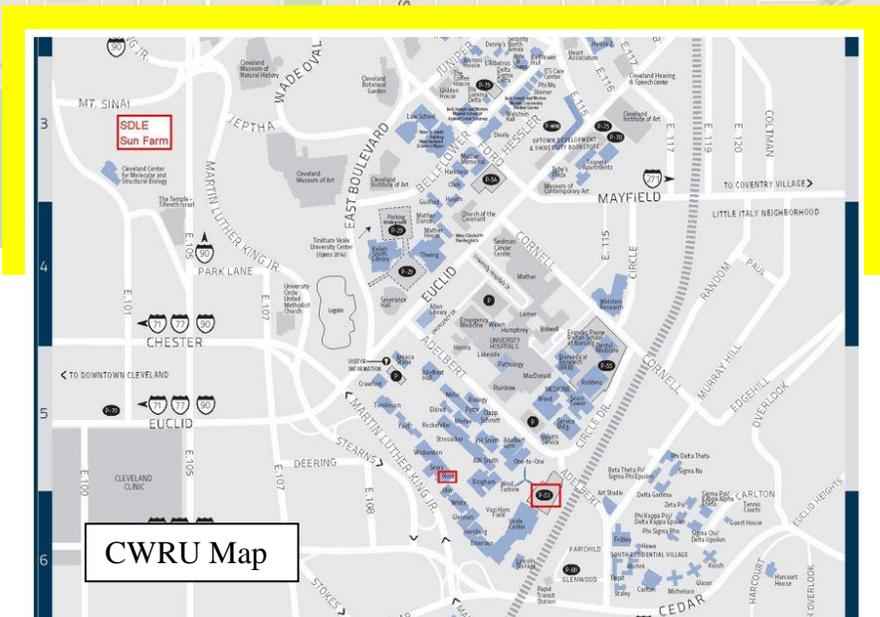
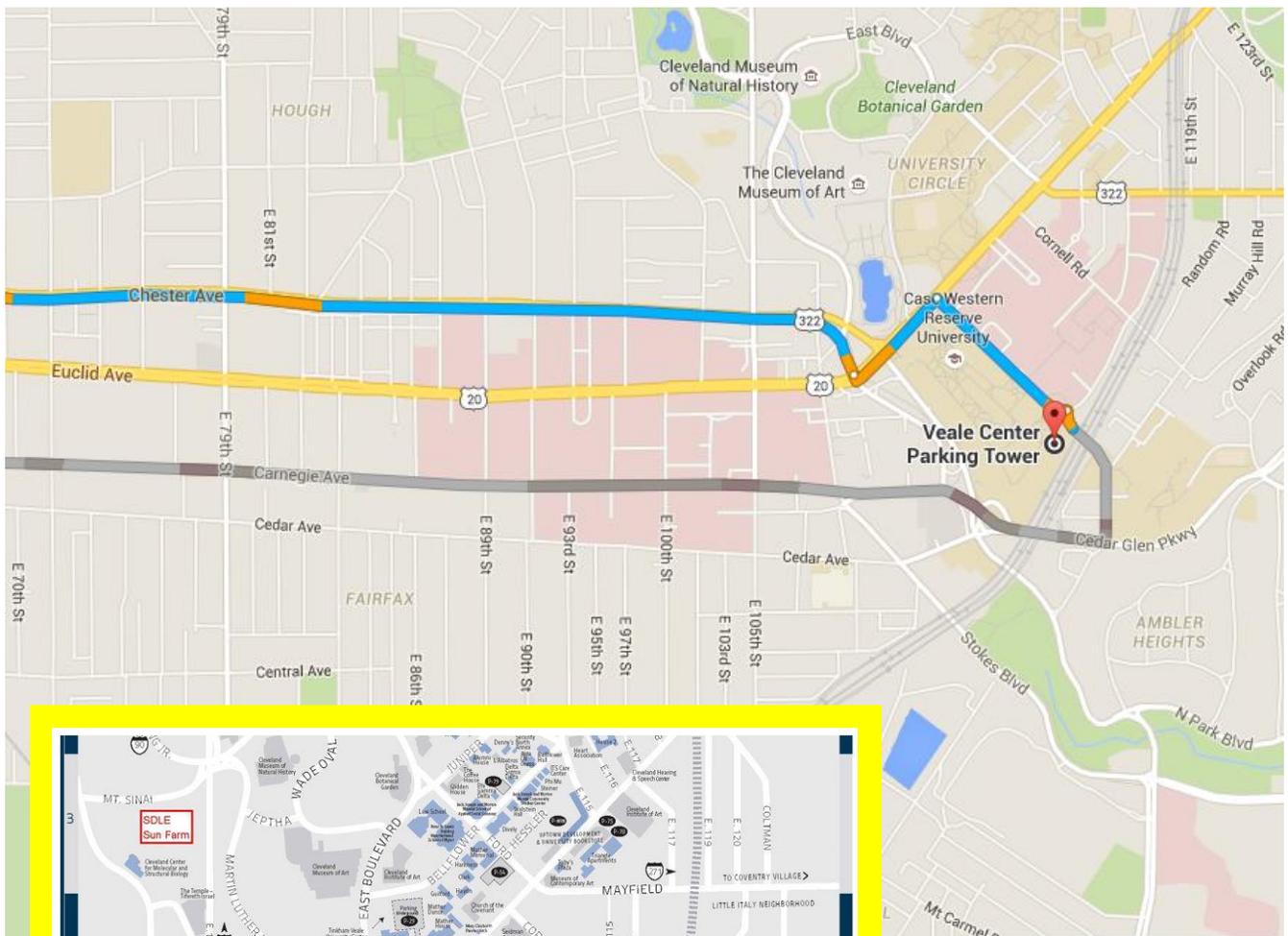
Turn right into the Veale Center Parking Tower.

Parking is \$10 for 4-24 hours, and varying amounts between \$2 and \$9 for less than 4 hours.

It is a couple minute walk to Nord Hall. (see map)

([Click Here](#) or on map for directions in Google maps)

([Click Here](#) for CWRU Campus Map)



## About the Program

The Solar Durability and Lifetime Extension (SDLE) Center at Case Western Reserve University (CWRU) is a world-class research center dedicated to lifetime and degradation science. Established in 2011 by Professor Roger French, the SDLE Center focuses on the durability and degradation of solar photovoltaic (PV) materials. Much of the research focuses on understanding and improving the long-term outdoor durability of polymeric materials continuously exposed to direct sunlight. Our visit will include tours of the "Sun Farm" (an outdoor array of instrumented and versatile solar panel mounts) and SDLE's labs (indoors), a presentation by Prof. French, and a dinner.

## About the Presenter

[Roger H. French](#) is the F. Alex Nason Professor in the Department of Materials Science and Engineering in the Case School of Engineering, with secondary appointments in Macromolecular Science and Physics at Case Western Reserve University (CWRU) in Cleveland Ohio, since August 2010.

He is director of the Solar-Durability and Lifetime Extension center, focused on lifetime and degradation science of long-lifetime environmentally exposed technologies such as solar energy, energy-efficient lighting, and building envelopes. He is the faculty director of the new CWRU Undergraduate Minor in Applied Data Science.

He received his B. S. in Materials Science from Cornell University, and his Ph.D. from Massachusetts Institute of Technology under Prof. R. L. Coble.

French is a Fellow of the American Ceramics Society. He is a member of Basic Energy Sciences Advisory Committee of Basic Energy Sciences, United States Department of Energy. He is a participant in Task 13 on Performance and Reliability of Photovoltaic Systems of the Intl. Energy Agency, PVPS.



BOY MACHINES INC.  
199 Philips Road  
Exton, PA 19341-1335



**Robert Koch**  
Midwest Regional Sales Manager

Cell: 484-645-3297  
[bkoch@boymachines.com](mailto:bkoch@boymachines.com)  
[www.boymachines.com](http://www.boymachines.com)



Manufacturers of Quality Polymer Additives  
for the Global Polymer Industry  
[www.valtris.com](http://www.valtris.com)

## ***February 8, 2016 Technical Meeting Presentation Summary***

Written by John Sovis

Application of long glass fiber plastic resins as a substitute for steel sheet metal and die cast metal parts was presented by Frank Flavin, Application Development Engineer from RTP Corporation. His corporation and two other companies produce the plastic coated glass pellets for corporation to injection mold parts to replace individual parts and several existing parts in the automotive and appliance products and many other products and industries.

Commercial glass fiber is purchased and plastic resin like Nylon is extruded over the fiber then is cut to lengths of one to three Inches. These pellets are used to injection mold parts in commercial available machines. The physical properties of the material are excellent. Stiffness increases with impact strength. It is not temperature sensitive. Parts made with this product are lighter and stronger.

The injection molding machine must use a short nozzle and large diameter screw to prevent breaking of the glass fiber. The mold design must use large gates. The part cavity and core should not have sharp corners to help with the material flow and prevent breakage of the glass fiber.

An automotive body example was shown of a design using long glass fiber plastic material. The number of components was less than 6 compared to a body design of today that used several dozen metal parts.

Sixty two members attended the meeting enjoyed the meal and the presentations by Mr. Flavin.



## ***SPE Cleveland Section Board Meeting Minutes February 8, 2016***

President – Rik Keeley – Meeting called to order.

Past President – John Sovis – Nothing to report.

National Councilor– Jerry Blayne – Nothing to report.

Treasurer – Moris Amon – Submitted monthly financial report.

Secretary – Dan Crist – Approved January minutes.

Program – Rik Keeley – Working with Akron on next year's schedule. Meeting this Thursday to continue the process. Requested ideas and an email if anyone can recommend a tour.

Advertising – David LaPierre – Not Present.

Newsletter – Mike See – Nothing to report.

Education – Dennis Meade – The committee has decided on the four essay contest winners from Rocky River High School. Awards will be given at our May meeting. Dennis Meade & Ron Raleigh have registered as judges for the North East Ohio Science & Engineering Fair in March.

Membership – Matt Caslow – Lackluster response to the web-based survey as only one response was recorded. Going forward, I believe a printed survey to be completed at the end of the meeting may be the best way to go. I believe that our survey should be completed at a future event, perhaps Case Western.

House – 50 People attended this February event.

Awards – Ron Raleigh – Committee would like to remind members to submit any potential appropriate contenders or recommendations for awards, local or SPE National in nature.

Student Section – Ron Raleigh – Continuing to help establish the Case student chapter.

Old Business –

New Business – Moris Amon presented the proposed program and cost of the March 14 event at Case Western Reserve University. The Board approved and added the stipulations of requiring pre-payment by March 10 and a \$5 penalty for payment after this deadline to discourage last-minute registrations and no-shows. Our pricing will be the same as usual (\$25 regular members, \$20 retirees, \$5 students), but attendees will incur an additional parking cost of up to \$10 per car.

## *About the SPE Cleveland Section*

We are the Cleveland Section of the Society for Plastics Engineers (SPE), the leading plastics professional society in the world. Since 1942, SPE has been the "go to" technical information, training, networking, and information-sharing source for plastics professionals who want to advance their knowledge and careers. Membership in the Society offers:

- free access to a vast on-line collection of technical journals and conference proceedings;
- significant discounts at many SPE-sponsored conferences, including SPE's famous international Annual Technical Conference (ANTEC);
- free access to a job search and recruitment web site, SPE Career Solutions;
- professional networking and information-sharing through its on-line social network, the Chain;
- opportunities for volunteer participation in the work of the Society at national or regional level.

Explore what SPE has to offer at <http://www.4spe.org>.

Founded in 1943, the Cleveland Section was the third section to be formed in the USA. Its first president was Reynold (Ren) Morse, who later founded the Industrial Molding Supplies (IMS) Company. Our objective is to promote scientific, engineering, and business knowledge related to the plastics industry in North East Ohio. We are the professional home for nearly 275 plastics professionals across the Greater Cleveland area.

Every year, from September through May, we organize one meeting per month, advertised in advance in our on-line newsletter, the SPEC Sheet. A typical meeting consists of a social hour, followed by dinner, and culminates in a technical presentation by an expert. Occasionally, a plant or laboratory tour replaces or supplements the presentation. Our programs (with the exception of the Awards Night in May) are held jointly with the Akron Section of SPE, with which we have collaborated since its inception in 1958, when it split off the Cleveland Section. For a history of programs in recent years see

<http://specleveland.org/history-of-events>.

Wherever you are in your polymers-related career-from student through retired-we invite you to benefit from and contribute to SPE as an active member of your Cleveland Section. Join our active membership by clicking the link below:

<http://specleveland.org/membership>

## **SCREW TIPS**

### **FOR PLASTIC INJECTION MOLDING**

**3 PIECE RING VALVES**

**5 PIECE RING VALVES**

**BALL CHECK VALVES**

**POPPET CHECK VALVES**



**COMPONENT MANUFACTURING AND DESIGN**

3121 Interstate Parkway, Brunswick, OH 44212

Phone: 330 225 8080 Email: [mail@cmd-tip.com](mailto:mail@cmd-tip.com)

Fax: 330 225 8777 Internet: [www.cmd-tip.com](http://www.cmd-tip.com)

## 2015 – 2016 SPE Cleveland Section Officers and Board of Directors

### *President*

**Rik Keeley**  
Helix Linear Technologies  
C: (440) 840-4212  
F: 216-539-7978  
[rwkplastics1@yahoo.com](mailto:rwkplastics1@yahoo.com)

### *President Elect*

**Martin Menish**  
Lubrizol Corp.  
C: 570-441-8951  
[mwmensch@gmail.com](mailto:mwmensch@gmail.com)

### *Past President*

**John Sovis**  
JS Engineering Services  
C: (216) 870-4608  
[jsovis@twc.com](mailto:jsovis@twc.com)

### *Secretary*

**Dan Crist**  
Component Mfg. and Design  
W: (330) 225-8080  
C: (440) 227-5424  
[mail@cmd-tip.com](mailto:mail@cmd-tip.com)

### *Treasurer*

**Moris Amon**  
M. Amon Consulting  
C: (216) 870-8897  
[m.amon@roadrunner.com](mailto:m.amon@roadrunner.com)

### *Advertising*

**David Lapierre**  
Omya, Inc.  
440-465-2883  
[David.Lapierre@omya.com](mailto:David.Lapierre@omya.com)

### *Technical Programs*

**Martin Menish**  
Lubrizol Corp.  
C: 570-441-8951  
[mwmensch@gmail.com](mailto:mwmensch@gmail.com)

### *Education*

**Dennis Meade**  
Chroma Colors  
(419) 202-6685  
[dmeade@chromacolors.com](mailto:dmeade@chromacolors.com)

### *Awards*

**Ron Raleigh**  
Valerus Chemical  
210-875-7250  
[ron.raleigh@valeruschem.com](mailto:ron.raleigh@valeruschem.com)

### *Councilor*

**Jerry Blayne**  
Professional Polymer  
Technical Services, LLC  
C: (216) 272-9541  
[blaynejj@att.net](mailto:blaynejj@att.net)

### *Membership*

**Matt Caslow**  
Dynesco  
330-573-3285  
[Matt.Caslow@dynisco.com](mailto:Matt.Caslow@dynisco.com)

### *Web Content*

**Michael See**  
See Technologies LLC  
C: (740) 503-8521  
[mdseeplastics@gmail.com](mailto:mdseeplastics@gmail.com)

## *Future SPE Cleveland Section Programs*

Month	Date	Topic	Location
Mar	14	Plastics in Solar Power Generation Presentation and tour	Case Western Reserve Univ.
Apr	11	Industry and Academics	Hilton Akron/Fairlawn
May	9	Awards Night	TBD

# ADVANCED MEASUREMENT TECHNOLOGIES



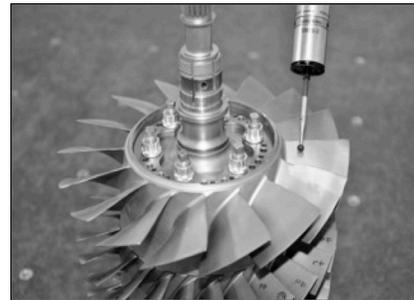
## MEASUREMENT YOU CAN TRUST!

ISO 17025 CERTIFIED  
CONTRACT INSPECTION SERVICE



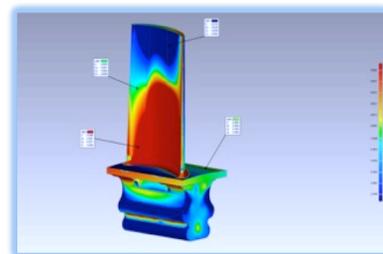
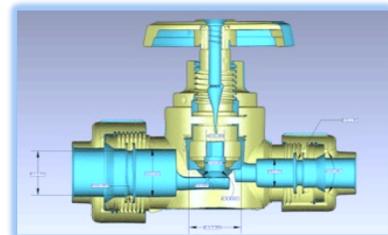
### SERVICES:

- ISIR/FAI
- CAPABILITY STUDIES
- TOOLING & FIXTURE  
VERIFICATION
- THIRD PARTY INSPECTION
- SCANNING/DIGITIZING



### CAPABILITIES:

- VISION
- CT SCANNING
- CMM TOUCH PROBE
- CMM SCANNING PROBE



PHONE: 262-404-5196  
INFO@ADV-MEASUREMENT.COM

WWW.ADV-MEASUREMENT.COM

Mar-Bal Fact:

**LESS PARTS**  
**IN YOUR PRODUCT,**  
————— **MEANS** —————  
**MORE MONEY**  
**IN YOUR WALLET.**

**AT MAR-BAL, WE UNDERSTAND THAT USING TOO MANY PARTS COULD BE COSTING YOU MONEY.**

With our **One-Source model**, you can eliminate separate molding and finishing costs by providing one mold with finishing where before you needed three or more. Let us show you how consolidating multiple parts or processes into one could be a substantial cost savings for you.

**When you switch to Mar-Bal, production doesn't have to be a puzzle.**

**HOW CAN INNOVATIVE PRODUCTS BY MAR-BAL SAVE YOU MONEY?**



## The One-Source Solutions Provider

**DESIGN | FORMULATE | COMPOUND | MOLD | FINISH**  
**Thermoset Composites**

**OHIO PLANT**  
Chagrin Falls, OH

**VIRGINIA PLANT**  
Dublin, VA

**MISSOURI PLANT**  
Cuba, MO

**R&D TECHNICAL CENTER**  
Chagrin Falls, OH

**ASIA SALES OFFICE**  
Shanghai, China



[mar-bal.com](http://mar-bal.com)

