

ASM-AFS NEWSLETTER

November 2011 – January 2012

NOTES FROM THE ASM NOVEMBER MEETING

For our November meeting, John R. (Chip) Keough, CEO of Applied Process Inc. talked about light weight and low energy properties of Austempered Ductile Iron (ADI). John gave an overview of ADI processing and familiarized the audience with the concept of embodied energy and some of the environmental advantages of converting from a conventional material/process combination to an ADI casting solution. John also emphasized the total-life cycle energy of ADI processing and its fit in sustainable “green” design material/process combinations.

NOTES FROM THE ASM JANUARY MEETING

For our January meeting, Tom Walton, Business Development Manager from Grede Holdings, talked about the Lost Foam Casting process and its applications. Tom covered various unique design considerations for fully utilizing investment in designing for casting in the Lost Foam Process. He also provided production examples and snap shots of upcoming designs to attest to the power of designing with Lost Foam relative to other casting processes. Here are some pictures from the meeting!



ASM STUDENT SCHOLARSHIP AWARDS

Every year ASM Peoria Chapter awards two scholarships to high school and university students. The Julia Bjerke Scholarship is awarded to local high school students to encourage them to pursue metallurgical and materials engineering as their future career. This year recipients are Lauren M. Kokos (graduate of Dunlap high school, currently pursuing her degree at the University of Iowa), and Charles B. Stovall (graduate of Richwoods high school, currently studying at the University of Illinois at Urbana-Champaign).

The Richard van Pelt Scholarship is awarded to recognize and financially assist talented and dedicated students at the University of Illinois interested in career in metallurgy and/or materials engineering. The selection is based on academic work, extracurricular activities, leadership qualities, and demonstrated interest in metallurgy and materials. This year's recipient is Hsin-Yun Choa, a Junior in Materials Sciences and Engineering at the University of Illinois at Urbana Champaign. Her research and internship experience have convinced her to pursue a career in the fields of metals or electronic materials.



FIELD TRIP TO STEEL DYNAMICS, INC.

The ASM Peoria Chapter organized a field trip to Steel Dynamics (SDI) in Pittsboro, IN on November 1, 2011. 19 ASM members were given an in-depth facility tour that included watching steel scrap melt in a 100+ ton electric arc furnace, following the molten steel through the continuous casting process, surface finishing operations, heat treatment and quality checking. The tour leaders also gave a presentation on casting technology fundamentals, the history of SDI's growth and their use of lean manufacturing and sustainable development through reclamation of scrap materials from derelict mining and casting facilities.



FIELD TRIP TO NSG-PILKINGTON

On November 8, 2011 ASM Peoria Chapter members visited NSG-Pilkington glass manufacturing company, located in Ottawa, IL. The organizers provided an in-depth tour of the facility and demonstrated their glass floating process, pyrolytic CFD thin film coating processes and quality checks at various sections. The tour leaders also explained how each coating is tailored to performance in a variety of applications.

BOWLING NIGHT SOCIAL

Social Events Committee of the ASM Peoria Chapter hosted a Young Members Social Hour and Bowling Night on January 27, 2012 at Jillian's in the Shoppes at Grand Prairie. 15 ASM-AFS young members gathered together for this networking opportunity. Everyone had a great time and lots of fun! Here are some pictures from this event.



ANNOUNCEMENTS AND UPCOMING EVENTS

► There will be a joint **ASM/AFS-SWE meeting on February 13**. Sunday Abraham, the principle research engineer from SSAB (Montpelier, IA) will give a presentation titled “**Optimizing Soft Reduction and Casting Conditions for Sound Centerline Integrity in Continuously Cast Slabs**”. This presentation will follow the Coffee Talk presentation by Marina Waters, sponsored by SWE. **If you would like to attend, please contact Catherine Stecklein (stecklein_catherine@cat.com, 309.675.1276)**

Mark your calendars with the remaining dates for the 2011-2012 season meetings:

- March 12, 2012
- April 9, 2012
- May 14, 2012

► ASM Peoria Chapter is participating in the **Annual National Engineers day**, which will be held at the Lakeview Museum on **February 19, 1-4 pm**. The Chapter will organize a booth with demos on magnetism, medical materials, polymerization, and much more. **We are looking for volunteers to help us with this event. Please contact Ben Rasmussen or Travis Brammer (rasmussen_benjamin_j@cat.com, brammer_travis_m@cat.com)**

Olly Rowan
ASM Publicity Chair 2011-2012
ASM-AFS Central Illinois Chapter
Rowan_Olga@cat.com