

February 2005

**NCC LAUNCHES NEW COMPANY – COMPOSITE ADVANTAGE LLC**

The National Composite Center (NCC) unveiled a new spin-off company called Composite Advantage LLC during a special press conference.

As a comprehensive source for composite manufacturing using closed molding technology, Composite Advantage will harness the unique features of polymer composite materials and advanced manufacturing techniques to deliver high value products to markets that do not traditionally use composites.



*Scott Reeve, new president of Composite Advantage LLC, speaks at press conference.*

Composite Advantage is currently housed in the north end of the National Composite Center with office and manufacturing space.

The new, for-profit company is a result of the Center's commercial successes in closed molding.

Closed molding technology offers the industry a number of key benefits including higher part quality with less material waste. NCC has become known as the comprehensive resource for closed molding technology including Vacuum Infusion and Resin Transfer Molding (RTM) processes.



*The announcement was covered by the Dayton Daily News as well as featured on TV Stations 2 and 7.*

Development work and prototype production in Closed Molding have also helped the Center create bagging techniques that eliminate tedious handwork yet deliver consistency and repeatability. The Center's advances in industrial applications culminated in the need for a long-term production company that could provide these products to customers.

In addition to pursuing the ongoing development and exploration of advanced manufacturing technologies to provide industry and consumers



*NCC's closed molding success resulted in the need for a long term production company.*

alike with high performance materials that last longer and cost less, the Center is dedicated to helping to retain key technologies and grow new businesses for the region. Composite Advantage represents another important step in that objective.

Scott Reeve, formerly vice-president of Technical Operations for NCC, will lead the company as its new president. According to Reeve, Composite Advantage will target customers which do not traditionally use composite material. "Our expertise allows us to help customers take their innovative products to a new level by providing custom enabling components that harness the unique advantages of polymer composites. Our lean



February 2005

manufacturing cells also make it possible to quickly change out tooling to handle the variations customers may require for part families,” he explained.

Though the majority of contracts are proprietary in nature, Composite Advantage will take over production of a unique pump concept for EXOKO Composites Company, LLC based in Tulsa, Oklahoma.

Able to accomplish the pumping of non-conventional difficult-to-pump fluids, the pump was traditionally assembled using a rubber lined steel tube housing and a coated steel rotor. While these conventional pumps offer good life and reliable service, abrasive fluids and heat build-up in the rubber significantly shortens the life of the pump.

By tapping into the Center’s development and prototype services, EXOKO was able to quickly and successfully develop a precise, progressive cavity pump with composite materials.

The composite pump offers significant performance improvement and longer life. The pumps are now in the field for validation testing and ready for commercial production. EXOKO is initially penetrating the down-hole oil field industry

with its composite pumps and forecasts a good demand for the current pump size with larger ones to come. Composite Advantage will manufacture the production parts.

### **NCC APPOINTS NEW VICE PRESIDENT OF TECHNICAL OPERATIONS**

With the launch of new spin-off company Composite Advantage by Scott Reeve, NCC has named Dave Richard as the Center’s new Vice-President of Technical Operations. Richard previously served NCC as the Center’s Business Development Director. He will continue to lead NCC’s efforts to commercialize composite products for worldwide automotive and commercial markets.

In addition to managing NCC’s intellectual property for Liteflex® composite leaf springs, he oversees the ongoing promotion of NCC’s Litecast™ technology, a recently expanded application that produces lighter weight suspension link assemblies for the medium to heavy-duty truck industries.

Richard brings over 20 years of engineering, process, product development and manufacturing expertise in the automotive and industrial parts supply industries

to the position. His composite experience includes six years in product design, industrial engineering and process development for filament wound parabolic leaf springs.

### **DELPHI TRANSFERS COMPOSITE BUSINESS TO NCC**

Delphi Automotive Systems (NYSE: DPH) announced it has transferred its advanced composites technologies and associated business to the National Composite Center. Delphi has contracted Jay Batten to NCC for the next two years to spearhead a strategic initiative that will identify opportunities to commercialize these technologies.

Batten has held key positions at Delphi including chief engineer of Advanced Composites for Delphi Saginaw Steering in Saginaw, Michigan and corporate manager of the Advanced Composites Center of Excellence.

NCC is recognized as the national center of excellence for the development and commercialization of cost competitive composite materials and manufacturing processes. As the critical link in that process, the Center is able to



February 2005

take projects that would normally require up to 10 years to move from the invention stage to industry application and dramatically shortens those steps to just two to four years.

NCC's signature **Rapid Fiber Preforming** process, automated precision filament winding, closed molding expertise, design optimization capability and advances in Long Fiber Reinforced Thermoplastics (LFT) make the Center a good fit to take Delphi's composite technologies forward.

### **NCC CHANGES MEMBER DAY DATES – PROMISES EXCITING UNVEILING**

Member Day is a day to network. It's also a day to participate in an atmosphere of mutual learning and showcase the technology, advances and success stories that each of you – our member companies - bring to the table. NCC's fifth annual Member Day will also include a roll out of some exciting news that will have a positive impact on the region's manufacturing and education arenas.

As a result, the dates for Member Day 2005 have been changed to May 16 and 17. As many of you know, last year for the first time, NCC introduced a

special "pre-events" day. The event was well attended showcasing NCC technical presentations, a facility tour and reception.

Member Day 2005 will be expanded over the two days to include more NCC technical presentations, Member company research projects and highlights of new member companies and their stories of invention and innovation. NCC currently has 12 time slots available for speakers. These are filled on a first come, first served basis. If interest is stronger, the Center will consider expanding the agenda further.

As always, attendance is free. Member companies can participate by simply attending, displaying their expertise by setting up an exhibit or giving a presentation on a new activity or recent advances. For more information on the event, to make your reservation, arrange for a tabletop display or secure a speaker's slot contact Dave Richard at [drichard@compositecenter.org](mailto:drichard@compositecenter.org)

### **SPE TO HOLD THERMOPLASTICS WORKSHOP AT NCC**

The Composites Division of the Society of Plastics Engineers

(SPE) will hold a two-day workshop on Thermoplastic Composite processing and materials at NCC April 28 – 29. The workshop will cover a number of topics ranging from the advantages of thermoplastic materials over traditional plastics and metals and injection molding of LFT pellets, pellet concentrates and/or direct roving/plastic pellets to form parts to theoretical concepts pertaining to aspect ratio, orientation, micro-mechanical models, fiber orientation predicting models and the prediction of mechanical properties. Demonstrations will compliment lectures. Attendees will enjoy theoretical teaching and hands-on participation. Registration fee for SPE members is \$500. Non-members may attend the conference by becoming SPE members and paying the additional membership fee of \$120 through the organization's website [www.4spe.org](http://www.4spe.org). Registration must be received by April 20. Registrations received after that date will be subject to a late fee of \$100. For more information contact Dr. Bob Brannon at [bbrannon@compositecenter.org](mailto:bbrannon@compositecenter.org); Dr. Dale Grove at [dale.a.grove@owenscorning.com](mailto:dale.a.grove@owenscorning.com); or Dr. Klaus Gleich at [gleichk@jm.com](mailto:gleichk@jm.com)