



104 Years of Making Carbon Products in West Virginia

By David Kaschak, Manager of Applied Sciences, GrafTech International

You may know GrafTech as the former UCAR Carbon Co, located in Anmoore, West Virginia, near Clarksburg, where we have been manufacturing carbon and graphite products for 104 years.

GrafTech is a \$1 billion global company headquartered in Parma, OH. We produce approximately 220,000 tons of graphite and carbon products every year - one quarter of the world's demand. Our products include graphite electrodes, carbon foams, nuclear graphites, advanced graphite materials and specialties, and natural graphite.

The Anmoore plant is home to our specialty graphites business. Here we have special processing capabilities to mix and form raw materials into complex shapes. We have a variety of ultra-high temperature heat treatment technologies that exceed 3,000 °C.

Our end-market users span many high technology industries important to society such as semiconductor manufacturers, solar energy producers, and the aerospace, transportation, defense, and nuclear industries. In the last five years we've added almost 100 people to our workforce in West Virginia and we have grown our specialties business over the \$100 million mark.

We have worked with West Virginia University for almost two decades and have shared many successes, both individually, and through joint consortia of partners. GrafTech has won five consecutive R&D 100 awards from 2002 - 2007. At the 2007 Composites and Polycon show, we won the Award for Composites Excellence for the "most creative application" with our Safe Haven™ Rescue Chamber, constructed from Safetfoam™ Composite Panels and designed to provide protection from a 50-psi blast or cave-in, fire temperatures up to 1500 °F, flood conditions, and toxic air.

Today at 11:00 a.m., as part of IOF-WV Day at the Capitol, a press conference is scheduled to announce the most recent success of our partnership with WVU - a one-ton graphite electrode manufactured partially with binder pitch derived from West Virginia coal. These electrodes conduct electric current that generates a 10,000 °C arc, producing enough heat to melt (recycle) scrap steel in electric arc steel furnaces. GrafTech has led the graphite electrode industry since 1930 and currently achieves three quarters of revenues from these products.

GrafTech has growing revenues and markets and is one of Money Magazine's top 10 stocks to watch. However, moving forward in WV, GrafTech faces many of the global challenges Tom Friedman, describes in his book, "The World is Flat," for example, historical, regional, and geographical divisions have been removed as advantages to global competition.

What does this mean for us in West Virginia?

First, we need to work with State agencies to find ways to train and upgrade our workforce. With average shop-floor wages averaging \$40,000 per year and management costs beyond that, our global advantage in WV is not low cost manufacturing; instead we need technology/know-how advantages.

Second, we need to work with economic development programs to find creative ways to offset capital costs. Our growing insulation business sells products into solar energy markets and increasing demand could require significant capital expansions and upgrades to our Anmoore facility.

In closing I would like to thank the members of the WV Senate Economic Development Committee and the IOF-WV program for providing GrafTech an opportunity to speak. I look forward to visiting with you and would like to invite you to visit the Graftech plant in Anmoore plant for a more detailed discussion of our business capabilities and growth opportunities.

EVENTS

Commercial HVAC Fundamentals: System Basics and Energy Efficiency Opportunities Online Seminar sponsored by the Association of Energy Engineers is now accepting registrations for the program beginning April 21, 2008. This seminar is designed to provide a clearer understanding of the basics of commercial air conditioning and heating equipment, and knowledge of specific, practical, easy-to-implement strategies for achieving optimum system performance and energy efficiency. For more information or to register, please log on to www.aeecenter.org/realtime/HVAC/.

40th Annual Symposium of The Society for Glass Science and Practice will be held May 7-8, 2008 at the Oglebay Resort and Conference Center in Wheeling, WV. To learn more or to register, please call Tom Bobbitt at (304) 375-6122, ext. 221, or Roben Randolph at (304) 627-3680.

WV Timber & Wood Products Show sponsored by the West Virginia Forestry Association will be held May 9-10, 2008 in Sutton, WV. Call the West Virginia Forestry Association at 1-888-372-9663 if you would like to register as an exhibitor or as an attendee.

This article summarizes Mr. Kaschak's testimony before the WV Senate Economic Development Committee during IOF-WV Day at the State Capitol on January 15, 2008.

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Co-Funding Opportunities for IOF-WV Research Teams


<i>Announcement</i>	<i>Due Dates</i>	<i>Funding</i>
U.S. Department of Energy Solar America Initiative Market Transformation: Solar America Showcases FY 2008 www.grants.gov	Request for Proposals: Now Open Proposals Due: March 12, 2008 June 12, 2008	Estimated Funding: \$1,000,000 in total funding is anticipated for FY 2008
U.S. Department of Energy Environmental and Unconventional Oil – Technology Solutions for Oil and Gas Resource Development www.grants.gov	Request for Proposals: Now Open Proposals Due: May 2, 2008	Estimated Funding: \$13,500,000 in total funding is anticipated
U.S. Department of Energy Collaborative Energy Efficiency and Carbon Footprint Research and Demonstration for the U.S. Manufacturing Industry www.grants.gov	Request for Proposals: Now Open Letter of Intent Due: April 9, 2009 Proposals Due: May 7, 2008	Estimated Funding: \$35 million in total funding is anticipated
U.S. Department of Energy Coal and Biomass to Liquid Fuels: Research and Development Needs www.grants.gov	Request for Proposals: Now Open Proposals Due: May 16, 2008	Estimated Funding: \$4.38 million in total funding is anticipated
National Science Foundation Small Business Innovation Research Program Phase I Solicitation FY-2009 (SBIR) www.grants.gov	Request for Proposals: Now Open Proposals Due: June 10, 2008	Estimated Funding: Up to \$100,000 per award

WEBCASTS

WEBCAST: Introduction to Process Heating Assessment Tool (PHAST) sponsored by the U.S. DOE Industrial Technologies Program will be held April 10, 2008. This Webcast provides an overview of Process Heating software tools used in SEN energy assessments. To register, go to <https://www1.gotomeeting.com/register/207422579>.

WEBCAST: Introduction to Pumping System Assessment Tool (PSAT) will be held April 30, 2008. This Webcast provides an overview of the Pumping System Assessment Tool (PSAT) used in SEN energy assessments.

To register, go to <https://www1.gotomeeting.com/register/872320587>.

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