



INTERNATIONAL
T R A D E
ADMINISTRATION

Coal News and Trends

Upcoming Events:

- **International Pittsburgh Coal Conference in Johannesburg, South Africa
September 10-14, 2007**

The University of Pittsburgh, Sasol, Eskom, Anglo Coal, Exxaro, and the North-West University, Potchefstroom Campus (South Africa), in association with the South African Coal Processing Society and the University of Witwatersrand, will host the 24th Annual International Pittsburgh Coal Conference in Johannesburg from September 10-14, 2007. This event will focus on environmental emissions issues and technologies surrounding the continued use of coal and the development of future coal-based energy plants to achieve 1) near-zero emissions of pollutants; 2) reduced costs; 3) and high thermal efficiency while producing a suite of products to meet future energy market requirements. Program and registration information can be found at <http://www.engr.pitt.edu/pcc/2007%20Conference.htm> or via email at pitt2007@sasol.com or pcc@engr.pitt.edu.

- **Renewable Energy & Alternative Fuels Trade Mission to Central Europe
September 10-19, 2007**

The U.S. Department of Commerce has recruited a trade mission to Central Europe and will assist U.S. business interests with finding qualified business partners in the renewable energy and alternative fuels sectors in Germany, Hungary, Slovakia, Czech Republic, and Poland. Each stop of the trade mission will provide detailed market briefings for the sub-sectors of biofuels, bio-mass, waste-to-energy, hydropower, geothermal, and clean coal technologies. U.S. embassies and consulates will host an evening reception in each city, providing an opportunity to meet with high level contacts and to obtain information on energy projects within each country. Complete details of the trade mission are posted on the following website: <http://www.buyusa.gov/kern/cetm/html> or via Glen Roberts at Glen.Roberts@mail.doc.gov, or via 661-637-0136.

- **Extemin in Arequipa, Peru, September 10-14, 2007**

Extemin is one of the premier coal and mining trade shows in Latin America, with participation from over 250 exhibitors and 13,000 buyers. The University of Arequipa organizes the technical conference held in conjunction with this event. For further information, please refer to Cesar Jochamowitz at cesar.jochamowitz@mail.doc.gov or <http://www.convencionminera.com/content/index.php>.

- **China (Taiwan) International Coal & Energy New (CICEN) Industry Expo,
Taiwan, China, September 16-18, 2007**

Over 10,000 coal and energy professionals are scheduled to attend the CICEN Expo. International coal and energy companies, research institutions, and industrial associations will provide advanced coal technology information at this venue. ITA's Office of Energy and Environmental Industries will lead a panel discussion on clean energy and environmental technologies at this event. For additional information, please contact Zhanglei Jinjun via email at international@cicenexpo.com or refer to <http://www.cicenfair.com/index.jsp>

- **Exposibram in Belo Horizonte, Brazil, September 25-28, 2007**

The 2005 Exposibram drew over 30,000 visitors from major coal and mining regions of the world. The technical program for the 2007 event includes exploration, mineral policy, environmental issues, mine planning, mineral economics, health and safety, and mineral legislation. In addition to technical sessions and workshops, booth and poster space are available. For detailed information, please refer to <http://www.ibram.org.br/> or contact Mauricio Vasconcelos at mauricio.vasconcelos@mail.doc.gov.

- **Gasification Technologies Conference, San Francisco, October 14-17, 2007**

This conference will feature the latest developments affecting major gasification technologies and projects in North America, Asia and Europe. It will also feature sectoral panels (power, refining, chemicals/fuels), a separate oil sands session, the latest on improvements in technologies and cutting edge research and development activities. With growing interest in carbon emissions controls and sequestration, there will be focused panels addressing these issues and biomass gasification. For additional information, please refer to <http://www.gasification.org/>

- **China Coal and Mining Trade Mission to Shanghai, Shanxi, and Beijing, October 29 to November 9, 2007**

The U.S. Department of Commerce is coordinating a trade mission of U.S. coal mining, equipment, services, and technology companies to Shanghai, Shanxi, and Beijing from October 29 to November 7. Participants on the mission will have the opportunity to visit the U.S. Pavilion at the China Coal and Mine Expo in Beijing, scheduled for November 6 to 9. The trade mission will commence in Shanghai for a series of business meetings from October 30 to November 1. The mission participants will then embark to Shanxi from November 1 to November 3 for meetings with coal mine officials, followed by business meetings in Beijing from November 3 to November 7. The trade mission registration fee of \$4,500 includes airfare, hotels, some meals, fees, and other support services. The China Coal and Mine Expo, which requires a separate registration fee, has the support of the DOC's staff in both the United States and China. Companies participating in the U.S. Pavilion at the China Coal and Mine Expo will work with DOC trade experts to establish or expand overseas distribution, generate sales leads, identify licensing and joint venture partners, find new customers, meet with existing clients, introduce new products, assess the needs of Asian markets, and evaluate competitors. The U.S. Pavilion will offer prospective U.S. exhibitors the following services: streamlined booth arrangements, market entry counseling and logistics liaison with Chinese organizers. Assistance with setting up one-to-one meetings with prospective Chinese buyers is available for a separate fee. For additional information, please contact Peggy Pauley at peggy.pauley@mail.doc.gov, (502) 582-5066.

Policy Analysis:

DOE-Patented Process Improves Energy Recovery, Reduces Coal Prep Wastes **Full-Scale Operation Demonstrates Viability of Fine Particles as Energy Resource**

http://www.fossil.energy.gov/news/techlines/2007/07067-Patented_Process_Cleans_Coal_Fines.html

August 28, 2007

Washington, DC - What began as a small in-house laboratory experiment to find a way to use discarded coal products called "fines" has now led to a full-scale demonstration that can boost coal operator profits, reduce waste at their plants, and recover valuable energy sources for consumers.

An efficient, cost-effective process for recovering coal fines is significant in today's energy marketplace because 2 billion tons of coal fines are impounded in the United States, and about 50 million tons are added to that total each year at more than 700 coal impoundment sites. In full-scale tests conducted by CQ Inc., of Homer City, PA, the GranuFlow(TM) process, which was developed and patented by scientists at the Office of Fossil Energy's National Energy Technology Laboratory (NETL), has shown that it can recover and clean a significant portion of coal fines to produce an added source of energy for the nation's future.

The GranuFlow process treats fine-sized coal particles (150 mesh, about 0.1 millimeters, or less) to improve their dewatering and handling characteristics. To demonstrate commercial viability of the process, CQ Inc., of Homer City, PA, employed the process at four commercial coal preparation plants under full-scale operating conditions:

- PBS Coals' Shade Coal Preparation Plant located near Central City, PA;
- Edison Mission Energy's Homer City Coal Preparation Plant located near Homer City, PA;
- Jim Walter Resources' No. 7 Coal Cleaning Plant located near Brookwood, AL.; and
- PinnOak Resources' Concord Coal Cleaning Plant located near Hueytown, AL.

In addition, combustion tests of the GranuFlow-treated coal were performed at Edison Mission Energy's Homer City Power Station. The full-scale tests were conducted to confirm previous test results at smaller scale, establish operating parameters for future commercialization, and generate the necessary information and data to commercialize the technology.

In its recently released final report on the tests, CQ Inc. noted that the GranuFlow process experienced no operational, permitting, regulatory, or end-user problems at full scale. In addition, economic forecasts indicated that the process can add more than \$1 million in annual profits for operators producing metallurgical coal and also add between \$600,000 and \$3 million for coal market values ranging from \$50 to \$100 per ton.

Although other methods are available to capture coal fines, these processes become less efficient as particle sizes decrease. The fines captured through these processes also have a high moisture content, which can reduce their heating value and cause materials handling problems, such as sticking in bins and freezing in winter. The captured fines can be thermally dried, but the process is expensive and energy intensive; moreover, a significant proportion of thermally dried fines can literally blow away with the wind.

In the GranuFlow process, a binder is added to fine-sized coal slurries to make the coal particles stick together or "agglomerate." The agglomerated fines are more efficiently captured during subsequent cleaning and dewatering, which reduces the size and number of impoundments. The binder is applied in such a way that cake moisture decreases, possibly eliminating the need for thermal dryers; and the smallest particles are agglomerated, making the filter cake virtually dust-free.

NETL received patents for the process in 1990 and 1995. Early research and scale-up demonstrations were funded by the Energy Department's Office of Fossil Energy, while the most recent, full-scale demonstrations were conducted under the Mining Industries of the Future Program within DOE's Office of Energy Efficiency and Renewable Energy.