GLOBAL ECONOMY

Tailored blanks manufactured in joint venture within NAFTA

ThyssenKrupp Tailored Blanks GmbH brings its Mexican subsidiary company ThyssenKrupp Tailored Blanks S.A. de C.V. as a contribution into the U.S. Joint Venture TWB Company L.L.C. TWB was established in 1991 as a joint venture between ThyssenKrupp Steel North America Inc., and Worthington Industries for the production of tailored blanks. ThyssenKrupp Steel, by adding its Mexican subsidiary, becomes the majority shareholder in TWB.

The Mexican company Tailored Blanks S.A. de C.V. supplies a local car manufacturer with customized, laser-welded steel sheets. TWB supplies the major U.S. car manufacturers with tailored blanks from its headquarters in Monroe, Michigan. There are also four additional production sites, two of which are also located in Mexico.

For more information: Bernd Overmaat, ThyssenKrupp Steel, Germany; tel: 49 203 / 52 - 4 51 85; fax: 49 203 / 52 - 2 57 07; bernd.overmaat@thyssenkrupp.com. www.thyssenkrupp-steel.com

United States, China announce joint coal mine methane project

The Department of Energy's Office of Fossil Energy announces a joint venture between U.S. and Chinese companies to extract coal mine methane at the Hebi coal mines in the Henan Province in China . It is part of the ongoing Asia-Pacific Partnership and is being coordinated by Tulane University 's U.S.-China Energy and Environmental Technology Center.

Central China Sakel Technology Inc. is the managing partner of the consortium that was formed to develop combined U.S./China projects. Other participants include CMM Energy LLC, Lake Oswego, Ore., and Milestone Consulting LLC, Frederick, Md. The $2.8 million investment follows a feasibility study that will define project parameters.

Initial plans call for the installation of twenty-two 500kW generators to burn the coal mine methane drained from the Hebi mines, and creation of a ventilation air/methane oxidation facility at one of the mines.

For more information: Mike Jacobs, U.S. Dept. of Energy, Washington, DC; www.energy.gov; tel: 202/586-0507.

Engineers from the U.S. and India team up to study gas hydrates

An international team led by the U.S. Geological Survey (USGS) and the Directorate General of Hydrocarbons, which is under the government of India's Ministry of Petroleum and Natural Gas, conducted an expedition to research and explore for gas hydrates in offshore Indian waters. Scientists conducted ocean drilling, coring, logging, and analytical activities to assess the geologic occurrence, regional context and characteristics of gas hydrate deposits.

According to India's Program Coordinator V. K. Sibal, "The global gas hydrate resources are estimated to be huge. Although the exploration and exploitation of gas hydrates pose significant challenges, the opportunities are unlimited. The combined wisdom of the scientific community from across the world could provide the answers and solutions to many of these challenges. The results of the studies are not only encouraging, but also very exciting. I believe that the time to realize gas hydrate as a critical energy resource has come."

To learn more about the USGS Energy Resources Program's work on Indian gas hydrates, visit http://energy.usgs.gov/other/gashydrates/india.html; www.ussgs.gov.

World's largest HBI plant begins operation in Russia

The world's largest hot-briquetted-iron (HBI) production facility at Lebedinsky Mining and Processing Integrated Works (Lebedinsky GOK) near Gubkin, Russia, has been built by Siemens Metals Technologies and consortium partner Midrex Technologies Inc. The new plant has a rated capacity of 1.4 million metric tons of HBI per year. The contract was awarded to Siemens Metals Technologies and Midrex in February 2005. The project was completed within 30 months and the plant started up in late October 2007.

In the new direct-reduction facility, iron ores, comprised mostly of magnetite, are first concentrated and processed to DR-grade pellets. These pellets are then fed into a Midrex shaft

BRIEFS

Alcoa Inc. has completed an $83 million major modernization investment project at **Alcoa-Köfem**, its operations in Szekesfehervar, Hungary. The project began in November 2005. The core of the investment is the modernization of Alcoa European Mill Products, which involves expanding brazing sheet capability to offer a full range of gauges. www.alcoa.com

Allegheny Technologies Inc. has reached an agreement with **Gulf Petrochemical Industries Co.** to supply ATI OmegaBond advanced tubing for GPIC's fertilizer production complex in the **Kingdom of Bahrain**. GPIC is the first company to adopt the OmegaBond technology for a full-scale plant application. www.alleghenytechnologies.com

Applied Materials Inc. has acquired **Baccini S.p.a**., a leading supplier of automated metallization and test systems for manufacturing crystalline silicon photovoltaic cells. www.appliedmaterials.com

ArcelorMittal has been awarded a license from the **Industrial Development Authority** of **Egypt's Ministry of Trade and Industry** to construct a steel plant in Egypt. Under the terms of the license, the plant will produce 1.6 million tons of steel via DRI technology, and 1.4 million tons of billets through the electric arc furnace route. www.arcelormittal.com

Olympus NDT Inc. has acquired **Pulsecho Inc.,** a distributor of nondestructive testing instruments located in Cobourg, Ontario, Canada. Pulsecho Inc. will be integrated into the Olympus sales distribution network as a direct supplier of its nondestructive testing instruments in certain provinces. www.Olympusndt.com

EOS, Munich, Germany, says that its worldwide sales of laser sintering equipment increased by 14% last year to $93 million. The company gained almost 50 new customers and experienced strong growth in Germany, Austria, and Switzerland. www.eos.com

Russian steelmaker **Evraz** announces that it will buy Canada's **IPSCO Inc.** for $4 billion. Evraz is building a stronger base in North America for downstream steel products such as steel plates and tubes. IPSCO makes steel plate, as well as pipes for the gas and oil industry. www.ipsco.com

Hunan Nonferrous Metals Corp. in China will acquire 13.4 million shares of **North American Tungsten Corp.** in a private placement, representing 9% of the company. The transaction will raise approximately $19.4 million for developing NTC's Mactung tungsten project in the Yukon. www.northamericantungsten.com

Kubota Corp. of Japan has taken delivery of a new **Metallisation Ltd.** Arcspray 170 system, which provides a consistent, durable thermal spray coating that can protect against corrosion for up to 20 years. MIG, coil and drum wire dispense zinc, aluminum, and zinc/aluminum. www.metallisation.com

Nucor Corp. plans to construct a sheet and coiled plate processing center in Mexico to better service the growing needs of its customers. Nucor anticipates that the new facility will have an annual capacity in excess of 500,000 tons. www.nucor.com

Park Electrochemical Corp. announces the grand opening of its new advanced composite materials "Pioneer Plant," located in Singapore. The new facility will focus on the development and manufacture of advanced composite materials for the aerospace industry in Asia. www.parkelectro.com

Rio Tinto Alcan has completed the construction of its spent pot-lining treatment pilot plant. The investment was worth $255 million and the plant is located in Saguenay, Quebec. www.riotinto.com

SABIC Innovative Plastics announces the opening of a major production line at its facility in Chung-Ju, Korea. The new line will produce LNP Verton long glass fiber-reinforced thermoplastic composites. www.sabic-ip.com

SAES Getters announces the signing of a commercial contract with the UK Ministry of Defence (MoD) for a four-year period and value of $ 4.2 million. The getter product is designed to efficiently and safely absorb hydrogen gas that can build up to hazardous levels within sealed containers. www.saesgetters.com

Toshiba Corp. has established a new company to enhance its nuclear power business. **Toshiba America Nuclear Energy Corp.** has the primary mission of marketing and promoting advanced boiling water reactor power plants. www.toshiba.co.jp

Unidym Inc. has entered into a joint development with **Nippon Kayaku Co.** to integrate Unidym's printable transparent electrodes into Nippon Kayaku's thin film solar cells. www. unidym.com

furnace, where they are reduced to metallic iron followed by discharging into hot-briquetting machines, producing HBI with metallization exceeding 93%. The briquettes have an apparent density exceeding 5.0 g/cm^3 and are well-suited for transport due to the low quantity of fines generated during handling.

For more information: Dr.Rainer Schulze, Siemens AG, Erlangen, Germany; tel: 49-9131 7-44544; rainer.schulze@siemens.com; www.siemens-vai.com/direct-reduction and www.midrex.com.

Silica coated with active material removes toxins

Tiny particles of pure silica coated with an active material could remove toxic chemicals, bacteria, viruses, and other hazardous materials from water much more effectively and at lower cost than conventional water purification methods, according to researchers at the University of South Australia, Adelaide.

They have investigated how silica particles can be coated easily with a nanometer-thin layer of active material based on a hydrocarbon with a silicon-containing anchor. The coating is formed through a chemical self-assembly process, so involves nothing more than stirring the ingredients to make the active particles. These active particles, called Surface Engineered Silica, were then tested to demonstrate that they could remove biological molecules, viruses, and bacteria.

"The results clearly show that organic species can efficiently be removed at pH ranges of drinking water by stirring the coated particles in the contaminated water for up to one hour and filtering the powder," the researchers say. They point out that the filtration process occurs through an electrostatic attraction between the pathogens and the surface-engineered particles.

For more information: Peter Majewski, University of South Australia, Adelaide, Australia; tel: 61 8 830 23162; peter majewski@unisa.edu.au; www.unisa.edu.au.

Bayer MaterialScience will supply **Clariant Masterbatches** with industrial quantities of high-quality Baytubes carbon nanotubes for the manufacture of products for compounds and master batches. The carbon nanotubes will initially be used in the new CESA conductive CNT product range. Potential applications include electrically conductive machine components and packaging for delicate electronic components.
www.bayermaterialscience.com