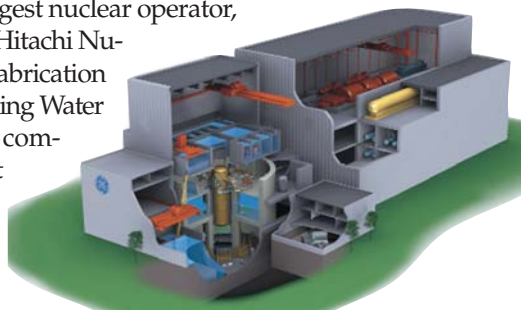


BUSINESS TRENDS



Exelon Nuclear to provide major components for nuclear reactors

Illinois-based Exelon Nuclear, the nation's largest nuclear operator, has signed a multi-million dollar order with GE Hitachi Nuclear Energy for large forgings and component fabrication for two next-generation Economic Simplified Boiling Water Reactor (ESBWR) nuclear reactors, should the company decide to build a new nuclear power plant in Texas. The agreement requires GEH to supply the major components needed for developing nuclear power plants, including the manufacturing of ultra-large forgings, reactor pressure vessels, and steam turbine generators.



The Ecomagination-certified, 1520-megawatt ESBWR is the latest evolution of the standard boiling water reactor. It is one of two Generation III+ reactor designs being considered by U.S. utilities for potential construction. The ESBWR incorporates advanced natural circulation and passive safety systems, which rely on natural forces such as gravity, evaporation, and condensation for plant operations instead of large numbers of active pumps and valves. By incorporating simplified design features and fewer components, the design allows for faster construction and lower operating costs, as well as enhanced safety. www.exeloncorp.com; www.ge-energy.com

NIST, European Union to join measurements and standards

Enhancing trade between the United States and the nations of the European Union is the goal of a collaborative agreement between the European Commission Joint Research Centre Institute for Reference Materials and Measurements, and the National Institute of Standards and Technology. The pact will advance the development and availability of international measurement standards in the fields of chemistry, life sciences, and emerging technologies.

Under the agreement, they will work to better coordinate their research and development programs in metrology. This will include collaborative research on new measurement methods and their quality assurance, including but not limited to cooperation in the preparation and value-assignment of certified reference materials. The JRC and NIST also plan to share resources and harmonize their respective regional and national responsibilities for chemical metrology, biometrology, and international measurement standards. www.irmm.jrc.ec.europa.eu/html/homepage.htm

Stainless steel imports continued to increase in 2007

The Specialty Steel Industry of North America (SSINA) has released statistical data on imports, U.S. consumption, and import penetration for YTD August 2007 compared to the same 2006 eight-month period. Some examples of the data include:

- **Stainless steel sheet/strip:** Imports in YTD August 2007 were 299,633 tons, a 13% decrease compared to YTD August 2006; U.S. consumption was 1,032,314 tons, a 17% decrease; eight-month import penetration was 29%, a one percentage point increase.
- **Stainless steel plate:** Imports in YTD August 2007 were 111,954 tons, a 66% increase compared to YTD August 2006; U.S. consumption was 255,273 tons, a 12% increase; eight-month import penetration was 44%, a 14% increase.
- **Stainless steel bar:** Imports in YTD August 2007 were 85,317 tons, a 12% increase compared to YTD August 2006; U.S. consumption was 158,497 tons, a 4% increase; eight-month import penetration was 54%, a four percentage point increase.
- **Stainless steel rod:** Imports in YTD August 2007 were 22,077 tons, a 12% increase compared to YTD August 2006; U.S. consumption was 43,733 tons, a 1% decrease; eight-month import penetration was 50%, a six percentage point increase.

www.ssina.com

BRIEFS

Aleris International will permanently close its coil coating facility in Toronto, Ontario. Production will be phased out during the first quarter of 2008 and the site will be permanently closed shortly thereafter. www.aleris.com

AK Steel Holdings has been named by **CNNMoney.com** as one of the ten best-performing Fortune 500 stocks for 2007 because it turned in a "solid 174% increase in stock performance," the second-best return to investors among Fortune 500 companies. www.aksteel.com

Curtiss-Wright Corp. announces that its Metal Treatment segment has been awarded a contract from the **Boeing Company** to establish a laser peen forming production cell inside of Boeing's facility in Frederickson, Washington. It would initially be utilized for shaping the complex curvatures of some of the wing sections of the new Boeing 747-8. www.curtisswright.com

\$66.7 million awarded for carbon sequestration

The U.S. Dept. of Energy has awarded \$66.7 million to the Midwest Geological Sequestration Consortium (MGSC) for the fourth large-scale carbon sequestra-

Ingersoll-Rand Co. will acquire **Trane Inc.** in a \$10.1 billion deal that would create one of the world's largest makers of air conditioners. The deal gives Ingersoll-Rand, which makes Thermo King refrigerated trucks, access to Trane's building and transportation cooling systems. www.ingersollrand.com

Intermet Corp., one of the world's leading manufacturers of cast-metal automotive components, announces that it plans to close its facility in Pulaski, Tenn. The plant is scheduled to ramp down in phases as current jobs are transferred to other Intermet facilities, with all operations ceasing in the second half of 2008. www.intermet.com

Liquidmetal Technologies Inc. has signed a manufacturing agreement with **Buhler Die Casting** through its wholly owned subsidiary **BuhlerPrince Inc.** The agreement is to manufacture the next generation of die casting equipment for Liquidmetal alloys. www.liquidmetal.com

Malvern Instruments has acquired **Viscotek Corp.**, a leading provider of chromatography solutions for the characterization of natural and synthetic polymers and proteins. www.malvern.com

Metallurgical High Vacuum Corp. has opened a new 2400 square-foot Engineering Design Center, equipped with the latest 3-D CAD systems that accommodate all vacuum pump and system engineering. MHV now offers high quality vacuum pumps and process equipment from vacuum coating systems to chambers for thermal processing of metals. www.methivac.com.

Northwest Pipe Co. has been awarded a \$30 million contract by **Major Tool & Machine Inc.** to manufacture tubing for the steel casings of centrifuge machines at its plant in Piketon, Ohio. www.nw-pipe.com

Nucor Corp. announces consolidated net earnings of \$364.8 million for the fourth quarter of 2007, which is 10% lower than the \$405.1 million in the fourth quarter of 2006. However, in the fourth quarter of 2007, Nucor's consolidated net sales increased 27% to a quarterly record \$4.40 billion, compared with \$3.47 billion in the fourth quarter of 2006. www.nucor.com

Oak Ridge National Laboratory announces that **Super-Power Inc.**, Schenectady, N.Y., a superconducting wire manufacturer, has signed a license agreement to use an ORNL-developed technology that can lower the cost of producing superconducting wires for more efficient transmission of electricity. www.ornl.gov

Reliance Steel & Aluminum Co., has sold the assets and business of the Encore Coils division of **Encore Group Limited**, a subsidiary of Reliance, to **Samuel Son & Co., Ltd.**, headquartered in Mississauga, Ontario, Canada. www.rsac.com

Tredegar Corp. has agreed to sell its aluminum extrusions operations in Canada for \$25 million to **WXP Holdings Inc.**, an affiliate of **H.I.G Capital**. Tredegar also plans to spend approximately \$24 million over the next 18 months to expand aluminum extrusion capacity at its plant in Carthage, Tennessee. www.tredegar.com



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tion project. The Partnership, led by the Illinois State Geological Survey, will conduct large volume tests in the Illinois Basin to demonstrate the ability of a geologic formation to safely, permanently, and economically store more than one million tons of carbon dioxide.

It will demonstrate CO₂ storage in the Mount Simon Sandstone Formation, a prolific geologic formation throughout Illinois, Kentucky, Indiana, and portions of Ohio. This formation offers great potential to store more than 100 years of carbon dioxide emissions from major point sources in the region. The partnership will inject one million tons of CO₂ into one of the thickest portions of the Mount Simon Formation, to test how the heterogeneity of the formation can increase the effectiveness of storage and demonstrate that the massive seals can contain the CO₂ for millennia. The results of this project will provide the foundation for the future development of CO₂ capture and storage opportunities in the region. www.fossil.energy.gov

Omniprobe Inc., a supplier of nanoscale failure analysis and process control solutions, has acquired the assets of **Ascend Instruments**, which provides hardware and software for sample preparation and manipulations in focused ion beam microscopes. www.omniprobe.com

Narrower glass wall in hollow fibers reduces fabrication time

A way of speeding up hollow-core optical fiber production that cuts production time from around a week to a single day, reducing the overall cost of fabrication, has reportedly been developed at the University of Bath in England. The problem in developing hollow-core fiber is that only a special sort of optical fiber can guide light down an air hole. A two-dimensional pattern of tiny holes in the glass around the core traps the light within the core itself.

The highly detailed nature of these fibers means that they have been difficult to fabricate and they can work for only a limited range of wavelengths. However, the Bath photonics group developed a new procedure. They narrowed the wall of glass around the large central hole by just a hundred nanometers. This tiny change to these fibers broadens the range of wavelengths that can be transmitted. They achieved this by omitting some of the most difficult steps in the fabrication procedure, reducing the time required to make the fibers from around a week to a single day.

For more information: Prof. Jonathan Knight, University of Bath, England; j.c.knight@bath.ac.uk; <http://www.bath.ac.uk/news/2008/1/17/hollow-core.html>.

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