DOE Program Promotes Efficient Energy Use

The U.S. Department of Energy (DOE) has invited proposals from energy-intensive industries to demonstrate technologies and process innovations that will save energy, improve efficiency and minimize waste. Proposals will be considered for cost-shared funding by the National Industrial Competitiveness through Energy, Environment, Economics (NICE^3) Program—a partnership among state energy, economic development and environmental departments, industry and DOE.

The NICE^3 Program partners industry with state and Federal agencies to move proven research advances into the commercial market by promoting demonstration of these energy-related technologies and processes. The program has already funded 87 projects with more than 200 partners in 31 states and territories. More that half of those receiving grants are small businesses.

The deadline for submitting proposals is October 20. Requests for proposals and information are available at www.oit.doe.gov/Access/nice3/, or by contacting the Office of Industrial Technologies Information Resource Center at 202/586-2090.

ASTM Calls for Papers On Marine Corrosion

Papers are invited for a Symposium on Marine Corrosion in Tropical Environments, sponsored by ASTM Committee G-1 on Corrosion of Metals, NACE International and the University of Mayab, Merida, Yucatan, Mexico. The symposium will be held November 13–14, 2000, in Orlando, FL, in conjunction with the standards development meetings of Committee G-1.

Subjects will include, but are not limited to, marine ports; airports; power plants (hydroelectric, thermal and nuclear); water treatment plants and supply systems; marine terminals; highways; bridges; railroads; oil refineries and processing facilities; and other infrastructures.

Prospective authors are requested to submit a title, a 250–300 word preliminary abstract and an ASTM paper submittal form by March 1, 1999, to: Dorothy Savini, Symposia Operations, ASTM, 100 Barr Harbor Dr., W. Conshohocken, PA 19428-2959 (phone: 610/832-9677). Paper submittal forms are available from Savini.

Test Your Plating I.Q. #334

By John Laurilliard, CEF

Carbonates *(fill in the blanks)*

1. Although carbonates are normally required in cyanide plating solutions, the upper concentration limit is approximately ____ oz/gal for sodium carbonate.

2. Excessive carbonates in cyanide plating solutions may cause reduced _____ and _____.

3. Carbonates can be removed from cyanide plating solutions by (a) _____ and (b) _____.

4. One mechanism responsible for carbonate build-up in cyanide plating solutions is the reaction of _____ with _____ of the air.

5. How many lb of $Ca(OH)_2$ will it take to precipitate 100 lb of: (a) Na_2CO_3 (____ lb) and (b) K_2CO_3 (_____ lb)?

Answers are on page 82.

Plating Seminar Planned in England

The Nickel Development Institute (NiDI) and the Institute of Metal Finishing (IMF) are organizing a seminar on electroless nickel deposition and decorative electroplating of plastics. The event is scheduled for May 12–13, 1999, at the Manor Hotel, Meriden, Warwickshire, UK. For information, contact: Rosemarie Evans, NiDI, The Holloway, Alvechurch, Birmingham B48 7QB (phone: +44 0 1527 584777; FAX: +44 0 1527 585562).

Ceramic Coatings Growth Is Expected to Continue

According to a Business Communications Company, Inc, study—*RLGB 111r High-performance Ceramic Coatings: Technologies, Materials, Applications, New Developments and Markets*—the market for the high-performance ceramic coatings services is expected to reach $987 million by the year 2002. The industry generated $710 million in 1997.

The largest service segment is thermal spray, which is expected to generate $510 million by 2002. PVD coatings are expected to account for another $186 million, and CVD for $218 million. Sol-gel and laser-assisted techniques are expected to make significant gains in the market over the next few years, the report says.

In 1997, about 54.3 percent of the market belonged to coating of engine components that include aircraft and aerospace, land based turbine, diesel, auto and marine engines.

Company News

o **Klein Plating Works, Inc**., Erie, PA, has achieved accreditation for ISO 9002 quality standard. The company provides commercial and decorative plating, metal finishing and related services to a wide range of customers, with emphasis in the electronics and power industries. Services include barrel and rack

Nobert Plating Company recently received the Illinois Safety Council's Safety and Health Award for "Outstanding Safety Performance." The award recognizes companies in Illinois for maintaining a safe and healthy work place and for striving to reduce industrial accidents. Both of Nobert's facilities in Chicago received the award. Shown here with the award are (l-r) Chris England, director of environmental, health & safety for Nobert; Todd Smith, vice president of operations; and Rob Sickles, vice president of sales. Founded in 1903, Nobert provides a variety of metal finishes and is currently in its fourth generation of family leadership.

applications of gold, silver, nickel, electroless nickel, copper, tin and solder, and continuous strip reel-to-reel applications of copper, nickel, gold, tin and solder.

Keystone Steel & Wire's new six-strand caster is operational. The system will increase annual output by 150,000 billets, or 23 percent, while lowering costs at the company's steel mill in Peoria, IL. Keystone is a manufacturer and distributor of fencing and wire products, carbon steel rod, industrial wire, nails and construction products.

METALAST recently hosted Russian scientists at its facilities in Minden, NV, to test a new "micro-arc oxidation" process developed by the team. The company is evaluating the applicability and commercial viability of the process. Experiments have already demonstrated definite applications with various "hard-to-coat" alloys, a spokesman said.

o **Hercule, Inc**. and **BetzDearborn Inc**. have signed a definitive merger agreement under which Hercules will acquire all BetzDearborn shares for $72 per share, or a total of approximately $2.4 billion. The new business enterprise will operate under the Hercules name and will make its headquarters in Wilmington, DE. The water and industrial process treatment business, excluding paper process, will continue to operate under the BetzDearborn name.

o **Spectro Analytical Instruments**, Fitchburg, MA, has acquired **Asoma Instruments Inc**. Spectro manufactures and markets spectrometers for a wide range of customers and applications. Asoma specializes in XRF product offerings.

o **The Ohio Broach & Machine Company**, Willoughby, OH, has earned ISO 9001 certification. The company designs and manufactures complete broaching machines, systems and broach tools. It also supplies broach sharpening and production broaching services.

Thomson Industries has been named a General Motors "Supplier of the Year" by GM's Worldwide Purchasing. Only 33 companies have ever received the award three times. Shown here at the presentation are (l-r) Gary L. Cowger, chairman and managing director of Adam Opel AG; William A. Pauwels, president of Thomson Industries; and Bo Anderson, executive director, Worldwide Purchasing GM Europe.

o **CSL, Inc**., Santa Clara, CA, recently signed a contract to become a licensee for **METALAST, International, Inc**., Minden, NV. METALAST licenses a complete technology to the aluminum anodizing industry that includes computerized process control, advanced chemistries, formal education and training, regular technical support and industry marketing assistance.

o **U.S. Filter Corporation** recently announced more acquisitions. The company has acquired: **Fusco Abrasives Systems, Inc**., a distributor of loose abrasives and equipment; **Kraber Industries**, distributors of surface finishing products; **The Buxton Group**, providers of cleaning and finishing equipment, services and supplies; **MEGA Systems & Chemicals, Inc**., provider of ultra-pure, wet chemical systems used by the microelectronics industry and related manufacturers; **Gardiner Equipment Co., Inc.**, a maker of chemical induction systems; and **Swift Surface Preparation**, a distributor of portable abrasive blast equipment.

o **The Capital Controls Group**, Colmar, PA, has acquired the assets and operations of **Mace Industries, Inc**., Springfield, MO. Mace is a manufacturer of polymer feed equipment, aeration systems and chemical feed packages.

o **McGean-Rohco, Inc**. has opened a new office in Doublin in the Republic of Ireland. **McGean-Rohco (Ireland) Ltd**., will supply proprietary formulations used for surface finishing,

aircraft maintenance and overhaul, marine and other industrial markets in Ireland and Northern Ireland.

o **SGS U.S. Testing Company Inc**., Fairfield, NJ, has announced that its **Analytical Services Group** is now registered for ISO 9001. The company conducts product safety and performance studies and related analyses for manufacturers in the pharmaceutical, chemical, medical device and consumer product industries.

o **Wilcoxon Research, Inc**., Gaithersburg, MD, has achieved accreditation for ISO 9001. The company provides products used for pump, motor compressor and fan performance monitoring; vehicle impact testing; and paper machine condition monitoring.

o **Cleveland Black Oxide**, Cleveland, OH, recently achieved ISO 9002 certification. The company specializes in the process of black oxide conversion coatings used in the machine tool, automotive, appliance and general metal forming industries.

o **Cytec Industries Inc**., West Paterson, NJ, has acquired a 50 percent interest in the Dyno portion of **Dyno-Cytec**, a European joint venture, from **Dyno Industrier ASA**, Oslo, Norway. Cytec is a vertically integrated, specialty chemical company. It develops, manufactures and markets specialty chemicals, specialty materials and building block chemicals serving a broad group of end users, including aerospace, plastics, coatings, mining, paper, water treatment and the automotive industries.

o **Summit Corporation of America**, with plating plants in Thomaston, CT, and Indianapolis, IN, has received laboratory accreditation to A2LA ISO/IEC Guide 25. The company's lab is now accredited for both ISO 9002 and A2LA ISO/IEC Guide 25, a requirement for automotive, aerospace, semiconductor and the electronics industries in North America and Europe.

o **Osmonics** has established five Global Business Units responsible for strategic leadership of its related product lines. Previously, Osmonics was organized by strategic business units located across the country, each managing marketing and manufacturing for its own individual products. The new structure will base all units at Osmonics' Minnetonka, MN headquarters and will manage related groups of products worldwide.

o **Vacuum Products Group of MKS Instruments, Inc**., Boulder, CO, has received a patent for its pumping line heat jacket technology. The jackets are used to heat the semiconductor and other process systems, keeping contaminants from building up and lowering system maintenance time.

o **SWD, Inc**., Addison, IL, has earned ISO 9002, ISO 14001 and QS 9000 quality and environmental management systems certification. The firm's laboratory has also received A2LA accreditation. The process took two years, according to a company spokesman. SWD, Inc. provides metal finishing and fastener sorting services. It has fully automated, computer-controlled plating lines to provide black oxide, zinc phosphate, passivation and bright dipping of aluminum and brass. A wide range of cleaning, stripping and coating services is also provided.

The fastener sorting division provides sorting and assembly services.

o **Degussa America**'s plant in Theodore, AL was awarded the "1998 Excellence in Industrial Treatment Award" in April by the **Alabama Water Environment Association (AWEA)**. The company was praised for an innovative system that combines the technology of Degussa personnel with the work of NASA National Space Technology Laboratories, which initially developed the process for dealing with human waste in space.

o **ABB Flexible Automation Inc**., Auburn Hills, MI, is adding 188,000 ft^2 of office and manufacturing space to its 342,000 ft^2 facility. The company is a major manufacturer of automation systems and robotic equipment for the automotive and general industries.

o **BeamAlloy Corporation**, Dublin, OH, has opened a new industrial scale coating service center to provide its patented ion-assisted coatings services for precision machine parts and other engineered components and tools.

The company provides a wide variety of metallic, nitride, oxide and diamond-like carbon coatings for components and tools used in aircraft/aerospace systems, automotive systems, medical devices, chemical processing equipment and other machinery applications.

In Memoriam

Bob Duva

Robert "Bob" Duva, an active member of the AESF International Branch and the Garden State Branch, died on August 5. He was a retired consultant in electrodeposition and materials science for Catholyte, Inc. An inventor of several patented formulations for precious metals plating, he was formerly technical director for Sel-Rex, where he was active in the field for some 30 years. He held degrees in chemical engineering from Iona College and Fordham University.

AESF also recently learned that **Dennis Stovall** of the Rockford Branch passed away on June 27, 1998.

Answers to quiz from page 80.

1. 14 oz/gal.
2. Conductivity and cathode efficiency.
3. (a) refrigeration and (b) chemical precipitation.
4. Metal hydroxide with carbon dioxide of the air.
5. (a) 70 lb and (b) 54 lb.