

## California Bill Targets Toxic Cleaning Towels

A bill recently introduced in the Assembly of the California Legislature—Shop Worker Safety Act of 2004 (Assembly Bill 2732)—would require purveyors of contaminated cloth shop towels to affix a warning label alerting users that the towel may have been in contact with hazardous materials.

The bill's sponsor says it may even be amended to possibly ban the use of all re-laundered industrial cloth shop towels.

The target of the proposed legislation are re-laundered cloth shop towels used by maintenance and factory workers, mechanics and other industry service people to clean up chemical and other spills. They are said to remain high in toxic chemical contaminants even after laundering.

A recent study by the Gradient Corporation found that employees who utilize 2.5 reusable shop towels per day could be exposed to lead at levels that exceed current permissible limits by as much as a factor of 26.

The bill's sponsor, Assemblyman Mervyn Dymally, chairs a subcommittee on Health and Human Services, and serves on the Health Committee.

## Test Your Plating I.Q. #394

By Dr. James H. Lindsay, Jr., AESF Fellow

### Chemical and Water Recovery Technologies

Describe the following recovery processes. What is the driving force?:

1. Evaporative recovery
2. Electrodialysis
3. Reverse osmosis
4. Ion exchange
5. Electrowinning

Answers on page 54

## SME Launches Globalization Resources

The Society of Manufacturing Engineers (SME) has launched some new resources that manufacturers can use to help understand global manufacturing challenges, trends and opportunities.

"The SME 2004 Global Manufacturing Fact Booklet" is a compilation of existing research on the challenges and opportunities for manufacturers in today's global

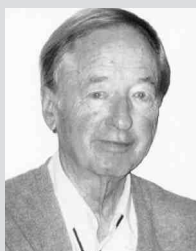
arena. It cites opinions by experts about why there are fewer manufacturing jobs in the U.S. today, what the opportunities are in the global economy, and the differences between the real and perceived threats.

"The SME 2004 Manufacturing Forum" will be a special management forum focused on global issues. It's scheduled for June 9 during the SME 2004 Annual Meeting. Improving workforce development, streamlining manufacturing processes and accelerating the speed of products to market are some of the solutions that will be addressed at the meeting, set for the Hyatt Regency Cincinnati in Ohio.

SME has also launched a new Web site—[www.sme.org/globalcompetition](http://www.sme.org/globalcompetition)—that includes information and resources to help manufacturers address the challenges faced today.

## Company News

□ Construction is nearly complete on a new 10,000 ft<sup>2</sup> building that will house additional offices, warehouse space and an expanded research lab for Columbia Chemical Corporation, Brunswick, OH. The building is located adjacent to the existing Columbia headquarters. Manufacturing, technical support and select product research will continue to be housed in the headquarters building.



### In Memoriam

**George L. Stutz**, president of The Stutz Company, Chicago, IL, passed away in February. A long-time member of the AESF Chicago Branch, he joined the company in 1946 after serving in the U.S. Air Force during World War II. The company was founded by his father, George A.

During his 58 years of service in the industry he served as a mentor for many others in the finishing business.

**William G. (Bill) Millman** former president of Lea Manufacturing Co. and an active member of the Waterbury Branch of the AESF, died on February 24, 2004.

Upon graduating from college, Millman began his metal finishing career at General Motors in Detroit, MI, under the tutelage of James H. Lindsay, Sr. He later moved to Waterbury, CT, to take a position with Lea Manufacturing Co.

Besides being active in the local branch, Millman was also active on the Society's national committees, as well as on the AES Board of Directors during the 1960s and 70s.

❑ Imagineering Finishing Technologies (IFT), South Bend, IN, has upgraded and expanded its quality accreditations to position itself to serve a wide range of industries internationally. IFT has been an accredited QS 9000 supplier since 1997 and recently completed requirements for ISO 9001:2000 quality standards, ISO 14001 environmental standards, and AS9100 aerospace and defense standards. The company is also a Nadcap accredited supplier for chemical processing and non-destructive testing.

❑ Wall Colmonoy Corporation has achieved accreditation of its materials testing laboratory for Nadcap. The laboratory has also been awarded accreditation to the ISO/IEC 17025 international standard. The company manufactures nickel-based hard-surfacing alloys and brazing filler metals and operates five contract processing facilities across the U.S. and Europe. Headquarters for the company is located in Madison Heights, MI.

❑ Bales Mold Service, Downers Grove, IL, has launched a new Precision Tooling Division. The company has hired John Lorenz as technical services manager to head up the new division.

The announcement marks the company's expansion into the aerospace, military and missile defense markets.

"We've dedicated a lot of time toward getting our services qualified under the stringent military specifications required to serve those markets," said Steve Bales, president of the company and a member of the AESF Chicago Branch. "There are many integral components being manufactured for everything from tanks to fighter

jets that require either corrosion protection or lubricity, and we can now provide coatings for that purpose."

❑ Adroit Automation, Inc., has relocated its manufacturing operations and headquarters from Evergreen, CO, to Tucson,

#### Answers to I.Q. Quiz #394

1. In evaporative recovery, plating chemicals are concentrated by evaporating water from the solution. Evaporators may use heat or natural evaporation to remove water. There are two types, one operating at atmospheric pressure and the other under vacuum. The driving force is thermal energy.

2. In electrodialysis, electromotive forces selectively drive metal ions through an ion selective membrane. The membranes are thin sheets of plastic material with either anionic and cationic characteristics. The driving force is applied voltage.

3. Reverse osmosis recovers plating chemicals from plating rinse water by removing water molecules with a semipermeable membrane. The membrane allows water molecules to pass through, but blocks metallic salts and additives. The driving force is pressure.

4. Ion exchange is a molecular exchange process where metal ions in solution are removed by a chemical substitution reaction with an ion-exchange resin. Ion exchange can be used with most plating baths. For example, copper is removed from an ion exchange resin by passing sulfuric acid over the resin, producing copper sulfate. The driving force is chemical attraction.

5. In electrolytic recovery, metal ions are plated out of solution electrochemically by reduction at the cathode. There are essentially two types of cathodes used for this purpose: a conventional metal cathode (electrowinning) and a high surface area cathode. The driving force is applied voltage. It is the oldest metal recovery technique.

**Source:** Office of Waste Reduction Services, Environmental Services Division, Michigan Departments of Commerce and Natural Resources, P.O. Box 30004, Lansing, MI 48909.

AZ. The new facility is located at 2030 N. Forbes Ave., Suite 105, Tucson, AZ 85745.

With the move, the company has changed its name to Adroit Automation of Colorado, Inc. The company offers turnkey automated process lines, programmable hoists/cranes and system controls.



Shown at ground breaking ceremonies at Process Electronics Corporation's new facility are (l-r): Mt. Holly Mayor Bryan Hough; John Hyman of Pinnix General Contractors; PEC Vice-President/CFO Larry McMarlin; Bruce Hodge from First National Bank; and Ken Newell of Stewart Cooper Newell Architects.

❑ Process Electronics Corporation (PEC) held a ground breaking ceremony in February for a manufacturing and support facility in Mt. Holly, NC. The new facility will provide 20,000 ft<sup>2</sup> of manufacturing space and 3,000 ft<sup>2</sup> of office space. The office area will house sales, plant operations and customer service. The factory area will provide space for production, testing and inventory. With headquarters in Gastonia, NC, Process Electronics Corporation designs and manufactures custom power-conversion and power-control equipment for a variety of industries and applications. *P&SF*