

bus, Ohio 43201; tel: 614/424-7742; fax: 614/424-4320.

Electric arc furnace steelmaking has become increasingly more efficient and productive through the use of new technologies and innovative practices. One method available for improving EAF performance involves injection of solids or gases directly into the furnace bath. The **EPRI Center for Materials Production** has initiated a collaborative project to *develop appropriate and cost-effective injection technologies*. The first phase of this project, cofunded with Ontario Hydro, is underway. It involves pilot-scale trials to determine qualitative and quantitative effects of oxygen and coal injection on yield, melt chemistries, off-gas volumes,

steel quality, and productivity. For further information on the second phase, contact Bob Schmitt, CMP, 4400 Fifth Avenue, Pittsburgh, PA 15213-2683; tel: 412/268-3243; fax: 412/268-6852.

Operating features and technical information on a new automatic control system for exothermic generators are presented in literature available from **Lindberg**. The new system *provides on-line continuous monitoring and control of gas dewpoint* and is ideal for processes where automatic control of exothermic gas dewpoint is needed. The system offers continuous operating characteristics that can compensate for upsets in ambient air humidity, cooling water temperature or other process fluctuations that could cause scrap and

rework, even if precise control is not required. For a copy of Bulletin 16300, contact Lindberg, a General Signal Company, 304 Hart Street, Watertown, WI 54094; tel: 800/873-4468; fax: 414/261-4962.

**REVCO/Lindberg**, a unit of General Signal, has named **Tom Norris** Director of Manufacturing for its Watertown, Wisconsin operations. Lindberg manufactures a *broad line of industrial heat processing equipment* in Watertown, as well as Blue M and industrial ovens and environmental chambers. Norris has been Director of Manufacturing for the organization's Blue M Electric operation over the past ten years.



## Environment

In the effort to preserve and maintain the fragile ecology of our planet, these recently selected abstracts are presented to help readers of Journals of Materials Engineering and Performance stay current on legislation and compliance with global environmental issues and regulations. They are reprinted from Metals Abstracts and Materials Business File with permission from Materials Information, a joint service of ASM International®, Materials Park, Ohio, and the Institute of Materials, London, England.

**Growth in Double-Hull Ships Seen With Rules.** International and national regulations calling for an evolution in oil tanker construction from one of single-hull design to double-hull configuration—intended to lessen the probability of large crude losses and environmental disaster in case of an accident—could lead to a 15 to 20% increase in steel consumption by shipbuilders. Increased steel demand likely will come from Japanese and South Korean shipyards, the largest builders of commercial oil tankers since the 1980s. However, the U.S. shipbuilding industry, which has been primarily a military shipbuilder since the 1970s, has taken its first step toward the production of commercial tankers.

M. Knights and T. Furukawa. Cited: *Am. Met. Mark.*, Vol 102 (No. 121), 24 June 1994, p 4 [in English]. ISSN: 0002-9998. PHOTOCOPY ORDER NUMBER: 199406-S6-0076.

**LTV Fined for Coke-Oven Violations.** LTV Steel Corp. has agreed to pay \$900 000 for violating coke-oven regulations at its Pittsburgh Coke Works, the Environmental Protection Agency says. LTV will make changes at the physical plant and in operations at the works. The steelmaker also must provide the results of current coke-oven research to regulatory agencies. The U.S. filed the first complaint against LTV in 1991. It alleged that the steelmaker violated emissions standards for coke-oven door lids, charging and pushing portals, offtake piping and fixtures, and combustion stacks. Gas from the coke oven also had too much sulfur in it, the complaint said. Cited: *New Steel*, Vol 10 (No. 6), June 1994, p 11 [in English]. PHOTOCOPY ORDER NUMBER: 199406-S4-0041.

**SPI [Society of the Plastics Industry] Criticizes [U.S.] Chlorine Proposal.** SPI has launched an extensive communications effort critical of the Clinton administration's proposal to develop a strategy to phase out chlorine and chlorinated compounds. SPI contends that there is no scientific basis for the proposal, which is part of the administration's Clean Water

Initiative. SPI has pressed its arguments in recent meetings with key officials in the EPA, Office of Management and Budget, and White House Office of Science and Technology Policy, and with several members of Congress. In a meeting with the staff of Senator Howard Metzenbaum (D-Ohio), SPI vinyl window producers stressed the devastating impact that a Cl phaseout would have on their business. Producers said that a Cl phaseout would essentially shut down their businesses. An SPI task force has been created to draft SPI policy and develop an association-wide strategy for addressing Cl issues. Involved in the effort will be SPI staff from the Vinyl Institute, Polyurethane Division, Vinyl Window and Door Institute, Vinyl Siding Institute, Fluoropolymers Division, Epoxy Resin Formulators Division, and Vinyl Formulators Division.

Cited: *Plast. Eng.*, Vol 50 (No. 6), June 1994, p 3 [in English]. ISSN: 0091-9578 PHOTOCOPY ORDER NUMBER: 199406-P4-0032.

**[U.S.] Supreme Court Rulings Could Affect Plastics.** Two recent U.S. Supreme Court decisions governing garbage disposal could affect the debate on plastics' role in solid waste, although experts are split on what that effect may be. The separate decisions, just two weeks apart in May 1994, require incinerators to test ash for hazardous content and ban local laws known as flow-control ordinances that require waste in a community to be taken to designated garbage-handling facilities. The flow-control decision could affect all waste facilities—landfills, incinerators or recycling recovery plants—that rely on a steady, guaranteed supply of garbage and accompanying fees for financing. The ash decision puts an added cost on incinerators that do not conduct such tests already.

J. Gardner. Cited: *Plast. News (Detroit)*, Vol 6 (No. 17), 27 June 1994, p 5 [in English]. ISSN: 1042-802X. PHOTOCOPY ORDER NUMBER: 199406-P1-0063.

**MACT: [U.S.] EPA Requirements.** Under title III of the US Clean Air Act Amendments of 1990 (CAAA), EPA is to set maximum achievable control technology requirements for the composites industry. Facilities with the potential to emit, assuming continuous operations, of ten tons/year or more of styrene will have to employ the MACT controls. EPA is supposed to publish the MACT standard in 1997. How will EPA determine the MACT? The Agency has already sent out a screening survey to >1000 facilities in the industry to collect information about raw materials, process technology, controls, and emissions. These surveys have been collected at EPA and are awaiting analysis. EPA has also reviewed commercially available control technology and has conducted one trial using a novel control method. Further, certain CI groups, notably the Pultrusion Industry Council and the SMC Environmental Subcommittee, are conducting tests and preparing analyses that will assist members in performing case-by-case MACT determinations.

J. Schweitzer. Cited: *CI on Compos.*, June-July 1994, p 4-5 [in English]. PHOTOCOPY ORDER NUMBER: 199406-D4-0008.

**[U.K.] Environmental Legislation: How Worried Should the Non-Ferrous Metal Sector Be?** Under the U.K.'s Environmental Protection Act (1990), all operators of Part A processes will be subject to integrated pollution control (IPC). Applications for authorization of existing nonferrous metals processes subject to IPC must be made between 1 May and 31 July 1995 and all processes should achieve the environmental performance expected of new processes by 1 May 1999. The chief inspector's process guidance notes for the nonferrous metals industry have been issued for public consultation and are due to be published in October 1994. An overview of the present situation is given, and what the industry is to do about it is discussed.

P. Gillians. Cited: *Mater. World*, Vol 2 (No. 6), June 1994, p 323-324 [in English]. ISSN: 0967-8638. PHOTOCOPY ORDER NUMBER: 199406-G4-0034.

**The Management of Steel Plant Ferruginous By-Products.** The main ferruginous by-products arising in the steel industry including blast furnace and steelmaking dusts, sludges, slags, and mill scale are reviewed. As well as providing a useful update of the previous study on by-products and wastes carried out in 1987, the report reflects the increasing legislative pressures that have come to bear on the industry in recent years. The response to these pressures has been a concerted effort to reduce waste generation at source, to increase the quantity of material recycled as useful by-products, and to ensure that residues that cannot be recycled are safely disposed of. The recovery, treatment, and alternative uses for steel industry by-products continues to be the subject of considerable research effort aimed at the development of cost-effective technology for the minimization of wastes and to provide additional market opportunities.

International Iron and Steel Institute, Brussels, Belgium, 1994 [in English]. PHOTOCOPY ORDER NUMBER: 199405-S4-0037.

**Ferrous Scrap Sector Pushed to Set Up Basel Fighting Fund.** Ferrous scrap processors and traders are being used to support a full-scale campaign aimed at ending threats posed by the Basel Convention and other environmental regulations. Industry members have been urged to support the establishment of a fighting fund for possible legal costs incurred in a court battle to change the treaty's broad definition of waste that some have interpreted to include scrap metal. The Basel Convention, which on 6 May 1994 began to be made a part of the trade laws in many of the 66 countries that have ratified it, was drawn up under the aegis of the United Nations environmental program and is aimed at banning shipments of hazardous waste to undeveloped countries. Some environmentalists and government officials have opted to include some types of scrap metals in that definition and sought to control or ban trade in those materials.

M. Marley. Cited: *Am. Met. Mark.*, Vol 102 (No. 102), 27 May 1994, p 8 [in English]. ISSN: 0002-9998. PHOTOCOPY ORDER NUMBER: 199405-S4-0031.

**OSHA to Issue Chromium Rule.** The Occupational Safety and Health Administration (OSHA) will issue a proposed rule regulating hexavalent chromium in the workplace by March 1995. After denying a petition for an emergency temporary standard (ETS) on the substance, OSHA said it would develop a rule to protect the estimated 200,000 workers exposed to the carcinogen in industrial settings. OSHA has evidence that exposure to hexavalent chromium at the permissible exposure level (PeI)—100  $\mu\text{g}/\text{m}^3$  of air—can result in excess risk of lung cancer and other related

illnesses. Industries subject to the carcinogen include pigment making, dyeing, chrome plating, steelmaking, paint making, welding, and printing. L.M. Cohn. Cited: *Am. Met. Mark.*, Vol 102 (No. 83), 2 May 1994, p 5 [in English]. ISSN: 0002-9998. PHOTOCOPY ORDER NUMBER: 199405-G4-0032.

**BHP to Receive A \$4 B Damages Claim in PNG.** BHP Minerals, the majority owner and manager of the OK Tedi copper mine in Papua New Guinea, is to be served with a \$4 billion compensation claim by landowners living in villages along the OK Tedi River. It is by far the largest compensation claim in Australia's history. The case is likely to be based on the allegation that the mine has been dumping up to 100,000 t/day of tailings in the OK Tedi River, thereby contaminating the river and fertile land nearby.

Cited: *Met. Bull.*, 5 May 1994, p 5 [in English]. ISSN: 0026-0533. PHOTOCOPY ORDER NUMBER: 199405-G4-0029.

**Billet Output Ending at Ocean State Steel.** The Rhode Island courts and the U.S. Department of Environmental Management's enforcement of air pollution controls will bring on a shutdown in billet production by Ocean State Steel Inc. beginning 23 May 1994. The East Providence, RI, mill also is up for sale, but if a new owner cannot be found, the operation will permanently close on 11 July 1994. The mill employs approximately 110 full-time workers. M. Beirne. Cited: *Am. Met. Mark.*, Vol 102 (No. 93), 16 May 1994, p 2 [in English]. ISSN: 0002-9998. PHOTOCOPY ORDER NUMBER: 199404-S2-0114.

**Risk-Assessment Debate Affects Processors.** Risk assessment, by which the government tries to quantify the health or environmental threats addressed by regulations, is gaining credibility in the U.S. as lawmakers seek to cut compliance costs. It has been raised as an issue this year in two bills that could affect plastics processors. In addition, some in Congress want to make risk assessment a standard practice for all regulations issued by the Environmental Protection Agency if it becomes a cabinet-level department. The Clinton administration also endorsed risk assessment in an executive order in 1993. Risk assessment, for instance, would evaluate scientifically the health risk of exposure to chemical emissions and compare that to other risks that people face every day.

J. Gardner. Cited: *Plast. News (Detroit)*, Vol 6 (No. 4), 28 March 1994, p 10 [in English]. ISSN: 1042-802X. PHOTOCOPY ORDER NUMBER: 199404-P4-0018.

**Clock Starts Ticking on HON Rule Compliance.** Around the first of May 1994, the Federal Register should have contained the text of the HON rule, marking official promulgation. This regulation, officially known as Hazardous Organic National Emission Standards for Hazardous Air Pollutants (Hazardous Organic NESHAP), was issued by the EPA under Title III of the 1990 Clean Air Act Amendments. With the official publication, the clock started ticking on the compliance timetable. As characterized by EPA, the HON is the first set of control technology standards to be proposed under section 112 of the amendments. From acetol to xyleneol, it applies to production of approximately 400 of the 660 chemicals turned out by the Synthetic Organic Chemical Manufacturing Industry (SOCMI). To be subject to the HON, a process must be used to produce one (or more) of the chemicals listed and have an organic hazardous air pollutant (HAP) as a reactant, product, by-product, co-product, or intermediate. Also covered are emissions from a special group of processes making certain polymers, synthetic rubbers, chlorinated hydrocarbons, and pharmaceuticals. Measured emissions will be: butadiene, styrene, carbon tetrachloride, methylene chloride, ethylene dichloride, tetrachloroethylene and chloroform. Batch processes are excluded.

T. Wett. Cited: *Chem. Process.*, Vol 57 (No. 5), May 1994, p 27, 29, 31 [in English]. PHOTOCOPY ORDER NUMBER: 199404-P4-0017.

**Ethylene and Propylene Retain Noncarcinogenic Classifications.** In a unanimous decision, the International Agency for Research on Cancer (IARC) did not classify ethylene and propylene as cancer-causing chemicals. Both chemicals remained in IARC's Group 3 category (not classifiable as to carcinogenicity). IARC reviewed its classification of the two monomers at its February 1994 meeting. IARC previously reviewed the two chemicals in 1979 and found no evidence to justify their classification as possible carcinogens. The Society of the Plastics Industry (SPI) and the Chemical Manufacturers Association (CMA) formed a task group that commissioned additional research studies to support the plastics and chemical industries' contention that ethylene and propylene do not cause cancer. In other action, IARC retained its classification of styrene as a Group 2B material (possibly carcinogenic to humans) and styrene oxide as Group 2A

(probably carcinogenic to humans). Ethylene oxide was upgraded to Group 1 (carcinogenic to humans) and propylene oxide was downgraded to Group 2B. Cited: *Plast. Eng.*, Vol 50 (No. 5), May 1994, p 6 [in English]. ISSN: 0091-9578. PHOTOCOPY ORDER NUMBER: 199404-P4-0012.

**SCAQMD Update.** Rule 1162 governing polyester fabrication in the South Coast Air Quality Management District (SCAQMD) in the United States will be amended effective 1 July 1994 to remove all exemptions and replace these exemptions with positive controls. The amended rule will go to the SCAQMD Board this spring. It covers corrosion-resistant and fire-retardant resins, high-strength resins, and all types of gel coats. In addition, low emission processes such as compression molding and pultrusion have been newly defined in terms of acceptable weight loss due to emissions. It is expected that the amended Rule 1162 will become a model for other air quality management districts in the state of California, as the Los Angeles Basin has the most stringent regulations. *Cl on Compos.*, April-May 1994, p 10 [in English]. PHOTOCOPY ORDER NUMBER: 199404-D4-0007.

**Composites in Commercial Aircraft: a Production Cost Perspective.** Composites offer significant performance benefits for commercial aircraft. Increasing use of composites is deterred by the high cost of the production process from design through component manufacture to assembly. Four aspects of this production process are addressed as the focus of cost-reduction efforts: design for manufacture, manufacturing process development, health safety and environment, and use of statistical methods. H.R. Fenbert. Cited: *Composites: Properties and Applications*, Vol VI (Madrid, Spain), 12-16 July 1993, University of Zaragoza, Zaragoza, Spain, 1993, p 159-165 [in English]. PHOTOCOPY ORDER NUMBER: 199406-F1-D-0345.

**Aircraft Depainting: Impact of New Federal Regulations.** Federal-level environmental regulations for the U.S. aerospace industry, resulting from the implementation of the 1990 Clean Air Act Amendments, will force the industry to change the methods used to repaint air vehicles. The regulations are scheduled for promulgation in November 1994, with compliance within 18 to 36 months. Mechanical repaint methods, which include abrasion, erosion, and pyrolysis, comply with the requirements to emit zero hazardous air pollutants for repaint processes. Many of these methods are still in the development stage and their applicability to a wide variety of commercial, military, and space vehicles is limited. Many methods require dedicated repaint hangars, are capital intensive, and can cause damage to some air vehicle surfaces. Some result in increased cycle time in the air vehicle maintenance process. The Federal regulations will, however, level the competitive playing field and create similar regulations for aerospace organizations in each state. California, which previously was one of the most stringently regulated states, will no longer be singularly penalized in the marketplace because of the added cost of environmental compliance. Because most of the compliant repaint processes are custom-designed equipment and facilities, U.S. aerospace companies must act quickly to select and install the new processes.

V. Morris. Cited: *Moving Forward With 50 Years of Leadership in Advanced Materials*, Vol 39 (Anaheim, CA), 11-14 April 1994, Society for the Advancement of Material and Process Engineering, p 1143-1155 [in English]. PHOTOCOPY ORDER NUMBER: 199406-E7-D-0127.

**Environmentally Conscious Manufacturing of Composite Structures.** Organic matrix composite structures provide enhanced performance capabilities for the most current U.S. Department of Defense (DoD) weapon systems and many commercial applications. Defense and commercial applications are continually calling for lower-priced components. One method to reduce cost is to reduce waste. Environmental issues must be addressed to improve the cost, reliability, and future existence of composites manufacturing. Environmentally conscious manufacturing takes into account all aspects of the manufacturing process with a focus on waste minimization and acceptable disposal methods. Many composite fabrication processes were assessed from incoming materials to final part inspection. This assessment examined the types of materials used and released during composites processing. Furthermore, a quantitative assessment investigated the quantities of materials and the costs related to acquisition, disposal, recycling, reuse, and waste management. Major cost drivers were identified for future development work. Environmentally conscious manufacturing is a cost issue, which, when more completely addressed, will enhance the competitiveness of the composites fabrication industrial base

and the cost of products to the U.S. Department of Defense and commercial customers.

P.B. Hauwiler. Cited: *Moving Forward With 50 Years of Leadership in Advanced Materials*, Vol 39 (Anaheim, CA), 11-14 April 1994, Society for the Advancement of Material and Process Engineering, p 1171-1182 [in English]. PHOTOCOPY ORDER NUMBER: 199406-E2-D-0278.

**Method of Forming a Substantially Solid Article Using a Stock Mixture Comprising Ground Plastic Material, in Particular Waste Material.** A method is given of forming a substantially solid article using a stock mixture comprising a binder and a ground plastic material, in particular waste plastic material, from which stock mixture, with a suitable liquid, an at least moist moldable and setting mass is formed. The moldable mass is cast in a mold that is intended to serve as a permanent outer cover of the article.

J. Spoor. Cited: European Patent: EP 0509607, 21 Oct 1992 [in English]. PHOTOCOPY ORDER NUMBER: 199406-E1-P-0303.

**Recycling of Waste Plastics—Concepts and Issues.** Recycling of waste material has reached a global level. LDPE, HDPE, PP, PS, ABS, PVC, and PET are among major plastics. The plastics recycled can be used as new material (break down into monomers, pellets), chemical, fuel, and energy sources. An insight to their recycling alternatives is provided.

Y. Saeki. Cited: *Ceram. Jpn.*, Vol 27 (No. 11), 1992, p. 1043-1049 [in Japanese]. ISSN: 0009-031X. PHOTOCOPY ORDER NUMBER: 199406-D1-P-0953.

**Utilization of Waste FRP as Resources.** E-glass is most widely used reinforced fiber, others include graphite and whiskers. The recycling of glass fibers and orthophthalic oxide resins being used in FRP boats disposition is discussed. Their partial use in automotive sheet molding compounds (SMC) is described. Teardown of large FRP ships is most difficult and time consuming. Thermal breakdown of phthalic acid can be done at 350 °C, but at 500 °C for 5 min, and other temperatures are also plotted and discussed. Pulverizing FRP and reusing as fillers are described.

T. Kitamura. Cited: *Ceram. Jpn.*, Vol 27 (No. 11), 1992, p. 1074-1078 [in Japanese]. ISSN: 0009-031X. PHOTOCOPY ORDER NUMBER: 199406-D1-D-0910.

**Water Thinnable Lacquer Systems for Plastic Items.** [Original Title: Wasserverdünnbare Lack-Systeme für Kunststoffteile]. Lacquering of plastic materials is frequently encountered in the car industry and is attaining increased importance with the spread of recycling. Considerable advances have been achieved in the development of water-based lacquering systems. The authors review some of these advances with reference to hydro priming, hydro-based lacquers, hydro-clear lacquers, and hydro single-layer lacquers, citing the actual compositions. The ecologically favorable low contents of organic solvents in these lacquers is somewhat offset by the problems in drying water from the sprayed items. This aspect and suitable equipment for coating and cleaning finished items are fully discussed.

R. Ritterand U. Hirmann. Cited: *Oberfl. JOT*, Vol 33 (No. 12), Dec 1993, p 28-32 [in German]. ISSN: 0170-4044. PHOTOCOPY ORDER NUMBER: 199405-E7-P-0114.

**Some Environmental Aspects of the Application of Fibre Reinforced Plastics in Structures.** The savings on resource consumption and the associated waste production concerning the recycling of glass fiber composites are discussed. Recycling can be understood literally in a sense that, after completing its life cycle, a product is reprocessed to an identical product. A broader perception of recycling allows the reprocessing of waste products to less valuable products. Considering recycling aspects only neglects the use of resources and waste production related to the use of the product during its lifetime. Some of these aspects are discussed. It is demonstrated that the application of composites in transport may reduce the use of resources and the production of waste to an extent that is potentially much larger than that of the involved composite material itself. R. Marissen. Cited: Report No.: N94-10877/6/XAB, Gov. Res. Announc. Index, 1993 [in English]. ISSN: 0097-9007. PHOTOCOPY ORDER NUMBER: 199404-D1-D-0611.

**Study and Application of the Radiation Reclaiming Waste Butyl Rubber Products by Gamma-Rays.** The effects of gamma-radiation on butyl rubber, gamma-radiation reclaiming of waste butyl rubber products and the applications of reclaimed butyl rubber are described. Also, the advantages of gamma-radiation reclaiming of butyl rubber are noted.

Photocopies of complete articles are available from the MI Document Delivery Service at ASM; please call 216/338-5151, ext. 450, for order and price information.

## Furthermore

CMP and AISI are cofunding a project with **Carnegie Mellon Research Institute** to extend the application of a microwave oil/water separation process developed with funding from CMP. The process, originally designed to separate hot strip rolling mill sludge, is being **modified to process sludge that has been reacted with polymers**. These materials are often added to facilitate separation by conventional means. The modified process will enable steel makers to not only treat waste fluids directly from the hot strip mill but also allow cleanup of waste treated with polymers and stored in lagoons on site. Samples of various polymer-treated wastes are being evaluated by CMR and the results of the study have been completed. For further information, contact Bob Schmitt at 412/268-6442.

The plastics industry's first comprehensive program to reprocess polyphenylene sulfide (PPS) resins using a "closed-loop" approach is being offered by the **Hoechst Celanese Corporation** under the Encore Recycled Thermoplastics Resins trademark. In addition to helping keep plastic materials out of solid waste landfills, the Encore PPS recycling program **significantly reduces materials waste** and leads to significant cost savings for manufacturers of PPS parts. Under this approach, Hoechst Celanese accepts PPS regrind from customers and reprocesses it back into pellet form. The customer has the option to receive the material as 100% recycled pellets or as recycled pellets blended with "virgin" PPS resin. Hoechst Celanese also will repurchase PPS scrap from those customers that cannot reuse it. The Encore program already has reprocessed over 12 million pounds of resin to date and operates closed-loop programs in liquid crystal polymer and acetyl resins. For further information, contact Frank Santana, Hoechst Celanese Corp., 26 Main Street, Chatham, NJ 07928; tel: 201/635-4161; fax: 201/635-4165.

Platinum metals that are now thrown away or sent overseas for recovery may soon be recycled in the U.S. instead. Technology developed by the **U.S. Bureau of Mines (USBM)** promises to increase the amount of platinum, rhodium, and palladium retrieved from discarded automobile catalytic converters. Currently, half of these converters are salvaged though most go to Japan or Europe for processing. The USBM process uses a solution of sodium cyanide to dissolve platinum metals; the leaching occurs at high temperatures. Heating the leach solution to even higher temperatures completely destroys the cyanide and precipitates the metals. **The process is simple, easy to control, and cost effective**, and has already been tested on a pilot scale. A Massachusetts scrap company began using the recycling technology this summer and expects to process some 220,000 catalytic converters per year. For further information, contact Sandra Cleva at 202/501-9649.

The exemplary compliance records of 14 of **Safety-Kleen Corp.**'s collection facilities have been recognized with **Environmental Compliance Awards by Environmental Information, Ltd.** A total

of 13 companies were selected from 300 eligible companies. To qualify for the award, facility operators are required to document that their facility had no hazardous waste violations under the Resource Conservation and Recovery Act or the Toxic Substances Control Act during 1993. This documentation included a signature from a state or federal inspector attesting to the perfect compliance record. Safety-Kleen provides recycling and reclamation for hazardous and contaminated waste fluids. For further information, contact Safety-Kleen Corp., 1000 N. Randall Road, Elgin, IL 60123; tel: 708/697-8460.

**Matarah Industries, Inc.** has announced the **introduction of a complete line of Spill Kits, designed for a variety of spill preparedness applications**. The deployment and use of Spill Kits is encouraged by Environment Protection Agency regulations as evidence of contingency spill and countermeasure planning which must take into consideration worst case scenarios. Spill Kit usage is also encouraged by insurance underwriters to minimize financial loss and other risks during actual spill situations. Spill Kits cover spills from 1 gallon through 1000 gallons.

**Sartomer Company**, a leading producer of specialty chemicals, has **successfully demonstrated its emergency preparedness** with a mock chemical spill drill. The drill is an integral part of the continuing emergency training process conducted by Sartomer Company in cooperation with the Hazardous Material Response Team and the Local Emergency Planning Committee. For further information, contact Jack MacDougall at 610/363-4100.

The use of plastics in potable water applications is expected to increase significantly by the end of the decade due to a relatively **new standard for materials that come in contact with potable water**. The standard, **ANSI/NSF Standard 61**, is being widely adopted by legislatures and communities throughout the United States and sets limits for the migration of organic and inorganic components from all plumbing system materials to the drinking water. To date, 25 states have adopted rules or regulations based on ANSI/NSF 61; another 12 states currently accept the standard as policy; and 10 more as they will implement the standard in the future, according to a 1993 survey by the Association of State Drinking Water Administrators.

**Proceeding of the CMP Electric Arc Furnace Dust Treatment Symposium IV** updates the steel industry on the current environmental regulations and their enforcement related to electric arc furnace dust treatment. Papers cover commercially-available technologies, new technologies under development and an operators' panel discussion. For further information, contact **EPRI Center for Materials Production, Carnegie Mellon Research Institute, 4400 Fifth Avenue, Pittsburgh, PA 15213-2683; tel: 412-268-3243; fax: 412/268-6852.**