

In the effort to preserve and maintain the fragile ecology of our planet, these recently selected abstracts are represented to help readers of Journals of Materials Engineering and Performance stay current on legislation and compliance with global environment 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.

Ecologically Sustainable Industrial Development. Original Title: [Desenvolvimento industrial ecologicamente sustentado.] The concepts, objectives, and agreements with respect to industry and the environment as they have evolved over the years, starting with the Copenhagen Conference in 1972 and extending through the Rio de Janeiro Conference in 1992, both organized under the auspices of the United Nations, are examined. The sine qua nons of a reasonable policy include the development of clean technologies, optimization of the use of resources, changes in consumption patterns, the need for industrial activity to imitate natural ecosystems, in which residues are converted into resources for the next stage in a close circuit, and concrete measures to combat massive poverty and illiteracy.

O.A. Alves de Brito. Cited: *Metal. ABM*, Vol 48 (No. 409), Sept 1992, p 569-573 [in Portuguese]. ISSN: 0026-0983. PHOTOCOPY ORDER NUMBER 199503-71-0085.

Examination and Testing of LEV Plant. Local Exhaust Ventilation (LEV) is a method to protect workers from harmful vapors, liquids, solids or gases in the workplace. Many government and regulatory rules must be followed to have a system that is effective and legal and tested to ensure this effectiveness. Regulations are summarized along with typical schedules for thorough examination of LEV systems. National Vulcan is a private organization that consults on LEV systems for private industry at two levels, evaluation and routine examination and testing of the system. Typical applications for LEV systems are in welding and grinding, paint spraying, and materials handling.

Cited: Foundry Trade J., Vol 168 (No. 3500), Nov 1994, p 536, 538 [in English]. ISSN: 0015-9042. PHOTOCOPY ORDER NUMBER 199503-71-0047.

Thermal Spray Industry Environmental Guideline. The work represents a comprehensive compilation of information that is to be used in tackling many of the laws and regulations with respect to the emissions and hazardous solid wastes emanating from thermal spray operations. The information included was derived from an in-depth review of literature, regulations, reviews with agencies and a collection task from corporate files of thermal spray industry members. The material is separated into five major sections. The summary section highlights the important issues and lays the foundation for the body of the Guideline. An education section reviews thermal spray's potential for hazardous waste materials and emissions, and a conclusions and recommendations section states the overall position of the thermal spray industry and indicates how many of the applicable regulations can be met. A supporting background section documents all the applicable laws, regulations, reporting requirements, and industry data. A final section refers the reader to sources of information and assistance.

ASM International, Member/Customer Service Center, Materials Park, OH 44073-0002, USA, 1994, pp 280 [in English]. ISSN: 0-87170-523-0. PHO-TOCOPY ORDER NUMBER 199502-71-0045.

Chromium Elimination. Alternatives to Cr in hard Cr plating and chromate conversion coating are described. Topics of discussion include electroless nickel plating, Ni-tungsten composite electroplating and spray coatings. Chromate conversion coating alternatives include cobalt/molyb-denum conversion coating and oxide layer growth in high temperature deionized water.

B. Meyers, S. Lynn, and E. Jang. Cited: ASM Handbook, Vol 5, Surface Engineering, ASM International, Member/Customer Service Center, Ma-

terials Park, OH 44073-0002, USA, 1994, p 925-929 [in English]. ISSN: 0-87170-384-X. PHOTOCOPY ORDER NUMBER 199502-58-0191.

Cadmium Elimination. Cadmium is a soft, blue-white metal widely used as a corrosion control coating on mild and high strength steel substrates. Although Cd coating performance has not changed over the years, recent revisions to environmental and worker health laws in the United States and other countries have created a regulatory climate in which continued Cd use is becoming cost prohibitive. Cadmium replacements are identified and their performance discussed.

M.W. Ingle. Cited: ASM Handbook, Vol 5, Surface Engineering, ASM International, Member/Customer Service Center, Materials Park, OH 44073-0002, USA, 1994, p 918-924 [in English]. ISSN: 0-87170-384-X. PHOTOCOPY ORDER NUMBER 199502-58-0190.

Compliant Wipe Solvent Cleaners. Wipe solvents are used to remove contaminants from a workpiece before it undergoes manufacturing operations that require clean surfaces. Wipe solvent materials that meet U.S. EPA requirements for the emission of volatile organic compounds, the reduction or elimination of hazardous air pollutants and the elimination of ozone-depleting substances are discussed.

M.T. Carroll. Cited: ASM Handbook, Vol 5, Surface Engineering, ASM International, Member/Customer Service Center, Materials Park, OH 44073-0002, USA, 1994, p 940-943 [in English]. ISSN: 0-87170-384-X. PHOTOCOPY ORDER NUMBER 199502-57-0214.

Compliant Organic Coatings. Compliant coatings are those that contain lower amounts of organic solvents as a result of the U.S. Federal Clean Air Act. Such coatings available for use in the aerospace industry are described, with comparisons made to conventional, noncompliant materials. Addressed are waterborne coatings, exempt solvent based coatings, high solids coatings, powder coatings and electrodeposition.

T.E. Kearney. Cited: ASM Handbook, Vol 5, Surface Engineering, ASM International, Member/Customer Service Center, Materials Park, OH 44073-0002, USA, 1994, p 935-939 [in English]. ISSN: 0-87170-384-X. PHOTOCOPY ORDER NUMBER: 199502-57-0213.

Vapor Degreasing Alternatives. Regulatory mandates that affect the use of industrial degreasing methods are described. Topics of discussion include aqueous degreasing in hot tank or dip tank system, converting an existing vapor degreaser to an aqueous cleaning system and an advanced vapor degreasing system that uses a three-stage system involving the use of a solvating chemical, a rinsing agent and a vapor rinse.

D. Zupan, T.L. Green, D.W. Benjamin, B. Hooke, and C. Fong. Cited: ASM Handbook, Vol 5, Surface Engineering, ASM International, Member/Customer Service Center, Materials Park, OH 44073-0002, USA, 1994, p 930-934 [in English]. ISSN: 0-87170-384-X. PHOTOCOPY ORDER NUMBER 199502-57-0212.

Environmental Regulations of Surface Engineering. U.S. environmental statutes and regulations are described as they pertain to material surface finishers. Topics of discussion include the Clean Air Act, Resources Conservation and Recovery Act, Superfund Amendments and Reauthorization Act and Clean Water Act.

D.J. Smukowski. Cited: ASM Handbook, Vol 5, Surface Engineering, ASM International, Member/Customer Service Center, Materials Park, OH 44073-0002, USA, 1994, p 911-917 [in English]. ISSN: 0-87170-384-X. PHOTOCOPY ORDER NUMBER 199502-57-0211. Selection, Application, and Disposal of Finishing Fluids. Environmental issues and regulations related to surface grinding of steel and nonferrous alloy workpieces are described. A selection guide is provided for metalworking fluids for grinding operations. The U.S. EPA Resource Conservation and Recovery Act establishes the minimum requirements for waste disposal and is the basis for local regulation of wastes. All metalworking fluids must be evaluated against RCRA criteria to determine if they are hazardous. Hazardous status for wastes increases expenses in disposal, administration, labor and insurance. Spent fluid disposal methods include hauling, evaporating and pretreating.

C.K. Cordell. Cited: ASM Handbook, Vol 5, Surface Engineering, ASM International, Member/Customer Service Center, Materials Park, OH 44073-0002, USA, 158-160, 1994 [in English]. ISSN: 0-87170-384-X. PHOTOCOPY ORDER NUMBER 199502-57-0187.

Impacts of Environmental Regulations on Surface Preparation and Bonding Processes Affecting Air Force Space Programs. During the past several years the number of environmental, health and safety (EHS) regulations affecting the use of chemicals have increased. The regulations are having a major impact on processes used by the space industry. In particular, many materials and process changes will be required in the areas of coating (painting) and cleaning prior to bonding. For the most part the larger companies are developing solutions to their environmental issues, starting with substances which have the earliest elimination date and concentrating on the processes using the largest quantities of targeted chemicals. Many of the regulations are targeted toward substances that are being used or have been used in large quantities. Of increasing concern is that the space industry uses specialized, critical processes where the amount of the chemical used is small; the qualification of a substrate is extremely expensive; or the likelihood of finding a suitable substitute is low, or any combination of these three. Development of a substitute chemical or elimination of a process will not be a trivial matter in many instances. Particular chemicals have been specified and developed in order to meet specialized and stringent engineering specifications and to satisfy manufacturing constraints. Any chemical substitution or elimination will have to address applications that are both directly and indirectly affected. Substitution is further complicated because of the historical evolution of many of the details of the systems procured by the AFSMC (Air Force Space and Missile Systems Center), where the current manufacturing process has been used for many years, is fully validated but the detailed data used to validate the process is no longer available. Sometimes there is only verification that the system or subsystem using the process performed as intended. What AFSMC and companies are facing is the difficult task of determining the requirements necessary to be required in order to qualify substitute materials and processes. To illustrate, several examples of processes are described. Some of the problems and concerns associated with replacement and issues to be resolved for qualifications are discussed.

S.C. Ruth, G.A. Sheaffer, B.D. Lucky, and N.R. Keegan. Cited: Conference: 50 Years of Progress in Materials Science and Technology: 26th International SAMPE Technical Conference (Atlanta, Georgia), 17-20 Oct 1994, Society for the Advancement of Material and Process Engineering, 1161 Parkview Dr., P.O. Box 2459, Covina, CA 91722, USA, 1994, 265-280 [in English]. ISSN: 0-938994-71-9. PHOTOCOPY ORDER NUMBER 199502-55-0201.

USW Blasts Paperwork Initiative. A proposal to reduce the paperwork burden on corporations drew fire from the United Steelworkers union, which warned lawmakers the idea could lead to increased workplace hazards. The plan to amend the Paperwork Reduction Act is part of the Republicans' "Contract With America" and was under scrutiny at a House subcommittee hearing. Among the contract's proposals is a requirement for the federal government to reduce the regulatory paperwork burden by 5% annually. Proposed changes would give the White House's Office of Management and Budget sweeping new authority to interfere with the obligation of employers to disclose information to their workers about safety and health risks in the workplace.

B. Schmitt. Cited: Am. Met. Mark., Vol 103 (No. 27), 9 Feb 1995, p 2 [in English]. ISSN: 0002-9998. PHOTOCOPY ORDER NUMBER: 199503-S4-0017.

Environmental [Japanese] Business Group To Offer Policy Advice. The Environmental Business Research Association has representatives from 20 of Japan's leading corporations and also has the support of the Ministry of International Trade and Industry. Its objective is to establish a correct understanding of the realities of eco-business and put forward proposals on future needs. Research findings from the group will be used by MITI in formulating environmental policy. Also, Japan's Environment Agency has decided to create a stricter standard for the products it authorizes to receive the eco-mark that denotes goods considered to be environmentally-friendly.

New Mater. Jpn., Feb 1995, p 10-11 [in English]. ISSN: 0265-3443. PHOTOCOPY ORDER NUMBER: 199503-P4-0016.

Cadmium Appeal for Polymer Industry Help. European plastics has just 11 months left to fight further Cd pigment restrictions that would all but eliminate the material in the industry. However, the International Cadmium Association, based in London, believes that it is only the apparent indifference of the sector that has given Brussels the initiative to make further restrictions. The ICdA, with support from the British Plastics Federation, is therefore appealing to the industry in the UK, France, Spain and Italy to help it influence the EC review later in 1995, and ultimately reverse the bias against the material. From 1996 Cd will be banned from PET, PS, PBT, and PP, among other polymers. It is already restricted in PVC, PU, epoxy resins and other plastics.

Cited: *Plast. Rubber Wkly.*, Vol 1571, 3 Feb 1995, 2 [in English]. ISSN: 0032-1168. PHOTOCOPY ORDER NUMBER: 199503-P4-0015.

Clean-Air Rules Challenge Processors. In 1995 thousands of plastics processing plants will be required to determine the amounts of particulates and volatile organic chemicals that they emit into the air and report those emissions to state or local environmental authorities as part of an application for a permit to continue operating. The new operating permit requirements stem from the 1990 amendments to the Federal Clean Air Act. Title V required all states and territories to submit to the U.S. EPA by 15 November 1993 a program to issue operating permits to industrial facilities. L.M. Sherman. Cited: *Plast. Technol.*, Vol 41 (No. 2), Feb 1995, p 83-84, 86. ISSN: 0032-1257. PHOTOCOPY ORDER NUMBER: 199503-P4-0014.

Zinc Sinker Ban Opposed. The Environmental Protection Agency has been deluged by a flood of written comments protesting the agency's proposal to ban lead and Zn fishing sinkers, according to the American Zinc Association, Washington. The association claims that the EPA has received approximetely 2000 written comments on the issue, none of which backs the agency's Zn proposal. The push to ban Pb and Zn sinkers may have gotten somewhat bogged down by the outpouring of opposition. The agency proposed the ban in early 1994, claiming that Pb, Zn and brass sinkers posed a threat to waterfowl.

Cited: Am. Met. Mark., Vol 103 (No. 25), 7 Feb 1995, p 6 [in English]. ISSN: 0002-9998. PHOTOCOPY ORDER NUMBER: 199503-G4-0030.

Title V Air Operating Permits: What They Mean for [U.S.] Foundries. Metalcasters need to check their state regulations to ensure they are complying with the U.S. Clean Air Act Amendments of 1990. As part of this complex law, Congress mandated that the Environmental Protection Agency (EPA) establish an operating permit program for air emission sources nationwide. Under Title V, the EPA established minimum requirements and standards for states to develop a specific Title V permit program. After EPA approves a state's regulation, industrial and other emitters of air pollutants are required to apply for air operating permits for their facilities. Cited: Mod. Cast., Vol 85 (No. 2), Feb 1995, p 52-53 [in English]. ISSN: 0026-7562. PHOTOCOPY ORDER NUMBER: 199503-G4-0028.

Emergency Appeal Blocks Mining Injunction. In an example of how far-reaching environmentalist efforts can be for mining, an emergency court appeal had to be lodged to block an injunction that could still have the effect of closing down or halting further development of three metal mining projects in Idaho, USA. Threatened with closure are Hecla Mining Co.'s Grouse Creek gold mine, Thompson Creek Metals Co.'s Thompson Creek molybdenum mine and FMC Gold's Beartrack Au mine currently under construction. The appeal, still pending, was the latest twist in a saga almost two years old that has pitted environmentalists against industry and state governments in the West over protection measures for threatened salmon species in certain waterways.

L.M. Cohn. Cited: *Am. Met. Mark.*, Vol 103 (No. 20), 31 Jan 1995, p 6[in English]. ISSN: 0002-9998. PHOTOCOPY ORDER NUMBER: 199503-G4-0027.

Top Court Decision May Affect [U.S.] Recyclers. Is a sale of waste equivalent to waste disposal? The U.S. Supreme Court recently refused to review a case where this question was answered in the affirmative, and Congress may tackle the subject later in 1995 in a somewhat different form that could affect metal recyclers. Early in January, the Supreme Court declined to consider a lower court's ruling that held Asarco Inc., New York, liable for the cleanup of copper smelter slag which it had sold. At issue was Asarco's challenge to a 1993 federal appeals court decision; that court said the company's sale of slag as ground cover to log yards could be considered solid waste disposal for purposes of imposing liability under federal law. B. Schmitt. Cited: Am. Met. Mark., Vol 103 (No. 15), 24 Jan 1995, p 6 [in English]. ISSN: 0002-9998. PHOTOCOPY ORDER NUMBER: 199503-G4-0026.

[U.S.] MSHA: Record Low for Mining Deaths. Mining fatalities were at a record low in 1994, with 40 deaths in metal and nonmetal mining and 44 fatalities in coal mining operations, according to the U.S. Mine Safety and Health Administration (MSHA). The end of 1994 also marked the 25th anniversary of the federal Coal Mine Health and Safety Act, which was signed into law in 1969. The mining industry has made dramatic improvements in safety and health protection for all miners since the act was signed into law.

L.M. Cohn. Cited: Am. Met. Mark., Vol 103 (No. 13), 20 Jan 1995, p 6[in English]. ISSN: 0002-9998. PHOTOCOPY ORDER NUMBER: 199503-G4-0023.

Foundry Uses Modular Dust Collection Units To Comply with OSHA Lead-Exposure Regulations. Tucson Foundry and Manufacturing, Inc., Tucson, Arizona, USA, has specialized in making copper and leaded bronze castings for the mining and aggregate industries for nearly 40 years. By July 1996, nonferrous foundries will lose their exemption from the federal OSHA lead-exposure standard. In its efforts to reduce Pb levels in compliance with the OSHA standards, Tucson Foundry has implemented various work practice and engineering controls. To improve dust collection, Tucson Foundry installed two Contamination Control Booths side by side in the foundry cleaning room in January 1994. In 1993, the foundry installed a new point-source dust collection system in the foundry's furnace room and introduced fluid dust suppression in the machine shop.

Cited: Powder Bulk Eng., Vol 9 (No. 1), Jan 1995, p 26-29 [in English]. ISSN: 0897-6627. PHOTOCOPY ORDER NUMBER: 199503-G4-0022.

VOC Rules Challenge FRP Processors. Composites processors that use unsaturated polyester resins must soon report their emissions of styrene monomer to their state environmental authority. Sweeping new environmental regulations under Title V of the 1990 Clean Air Act amendments require the U.S. Environmental Protection Agency to certify programs in every state to limit emissions of volatile organic chemicals (VOCs) and hazardous air pollutants. To satisfy EPA, the states must require all major emissions sources (defined as ones likely to emit >10 tons/year of hazardous air pollutants, including styrene) to document their emissions and obtain state operating permits. To help processors apply for Title V operating permits, a comprehensive study was begun in February 1995 at Dow Chemical Co.'s Freeport, Texas, research facility. The study is designed to identify exact levels of styrene emissions form open-mold processing. The program is sponsored and managed by the Composite Fabricators Association, headquartered in Arlington, Virginia.

Plast. Technol., Vol 41 (No. 3), March 1995, p 67-68 [in English]. ISSN: 0032-1257. PHOTOCOPY ORDER NUMBER: 199503-D4-0005.

[U.S.] Clean Air Act Update: Sanctions Related To Operating Permit Programs. The U.S. Clean Air Act (CAA) requires the Environmental Protection Agency to impose sanctions if states fail to adopt and submit to the PEA certain rules and programs required by the CAA. States were required to submit operating permit programs meeting the requirements of Title V of the CAA and the EPA's guidance regulations by 15 November 1993. If a state fails to submit such a program, or the EPA disapproves a program, the CAA requires the EPA to impose one of the sanctions specified in Section 179(b) of the CAA (i.e. 2-to-1 offsets for major new or modified sources or highway funding restrictions). Under EPA policy, if a state fails to submit a program by the 15 November 1993 due date, or if the EPA determines that a submittal is not complete, the 18-month period for application of the first sanction expires on 15 May 1995.

K. Berry. Cited: Ceram. Ind., Vol 144 (No. 2), Feb 1995, p 29[in English]. ISSN: 0009-0220. PHOTOCOPY ORDER NUMBER: 199503-C4-0005.

[U.S.] Attorney General Revises Environmental Crimes Manual. Violations of federal laws are most often identified and prosecuted by U.S. Attorneys. In emphasizing the efforts directed toward the aggressive and fair prosecution of environmental crimes, Attorney General Janet Reno in August 1994 approved a Bluesheet revision to the U.S. Attorney's Manual on Environmental Crimes. The Bluesheet revision replaces the entire Chapter 11 of Title 5. The new procedures define and strengthen the partnership between the Department of Justice's Environment & Natural Resources Division and U.S. Attorney's Offices in the investigation and prosecution of environmental crimes.

C.G. Marvin. Cited: *Ceram. Ind.*, Vol 144 (No. 2), Feb 1995, p 20 [in English]. ISSN: 0009-0220. PHOTOCOPY ORDER NUMBER: 199503-C4-0004.

[U.S.] EPA Delists Bethlehem Steel Waste. The U.S. Environmental Protection Agency has ruled in favor of Bethlehem Steel Corp. and excluded certain solid wastes from its list of hazardous wastes. About two years ago, Bethlehem Steel petitioned the agency to remove certain wastes at its Sparrows Point, Maryland, plant from the federal hazardous waste list. The EPA granted final exclusion from its hazardous waste list, effective 5 January 1995, to chemically stabilized wastewater treatment filter cake generated at Bethlehem Steel's Sparrows Point facility. The company produces hot- and cold-rolled steel strip, steel plate, galvanized steel sheet and tin- and chromium-coated steel sheet at the Maryland facility.

L.M. Cohn. Cited: Am. Met. Mark., Vol 103 (No. 11), 18 Jan 1995, p 5 [in English]. ISSN: 0002-9998. PHOTOCOPY ORDER NUMBER: 199502-S4-0009.

Meeting OSHA's Standard: Lead Compliance. In the fall of 1994, the U.S. Occupational Safety and Health Administration (OSHA) imposed 68 citations and levied fines in excess of \$2 million on a single scrap processing operation, mostly for alleged violations of federal Pb and cadmium standards. The administration charged that the company's work and lunchroom surfaces were contaminated with Pb and the firm had no written Pb compliance plan, no Pb-related warning signs posted, and no medical surveillance and employee training programs. While such drastic regulatory actions have been rare in the scrap industry, this \$2 million example could be a warning that OSHA is targeting compliance with its Pb and closely related Cd standards in the scrap recycling industry. It's even more important than ever, then, that scrap companies ensure that their operations conform with these workplace safety rules.

M. Mattia and K. Kiser. *Scrap Process. Recycl.*, Vol 52 (No. 1), Jan-Feb 1995, p 65-66, 68-70, 72-73 [in English]. ISSN: 0898-0756. PHOTOCOPY ORDER NUMBER: 199502-G4-0015.

Bismuth-Tin Shot Receives Nod from [U.S.] Wildlife Agency. The U.S. Fish and Wildlife Service has approved the use of Bi-Sn shot for waterfowl hunting, making it the second metallic shot approved for use this season. The agency granted "conditional approval", meaning it approved use of the metal shot only for the remainder of the current hunting season. The decision followed "initial testing conducted by the Bismuth Cartridge Co., which found the shot was not toxic when ingested by waterfowl", the U.S. Bureau of Mines said. For additional approval to extend use of the Bi-Sn shot to the 1995-1996 hunting season, the producer must complete two longer-term toxicity tests and develop a detection device for field use by law enforcement personnel. Steel is the only other kind of shot approved for waterfowl hunting. Lead shot was phased out of use due to toxicity to birds that accidentally ingested the shot. Bismuth Cartridge petitioned the U.S. Fish and Wildlife Service in June 1994 asking for legalized use of Bi-Sn shot on an interim, conditional basis.

L.M. Cohn. Am. Met. Mark., Vol 103 (No. 6), 10 Jan 1995, p 5. ISSN: 0002-9998 [in English]. PHOTOCOPY ORDER NUMBER: 199502-G4-0012.

AZA Will Focus on Environment. The American Zinc Association will focus on such issues as safe drinking water legislation and environmentally related Zn matters in the new Congress, though its approach to Capitol Hill shouldn't change under the new Republican leadership, according to the executive director. The association also has watched the Defense Logistics Agency closely regarding sales of Zn from the national defense stockpile. Risk assessment, a popular Republican issue that can cross partisan lines, is also in the forefront of the association's issues for the new Congress.

L.M. Cohn. Cited: Am. Met. Mark., Vol 103 (No. 3), 5 Jan 1995, p 6 [in English]. ISSN: 0002-9998. PHOTOCOPY ORDER NUMBER: 199502-G4-0011.

[U.S. Federal] Judge Approves \$20M Settlement for Workers. Former employees of a U.S. federal uranium processing plant have won a \$20 million health-care settlement that will provide them with medical monitoring for the rest of their lives. A federal judge approved the settlement for approximately 4500 employees and contractors at the US Department of Energy's Fernald plant, approximately 20 miles northwest of Cincinnati, Ohio. The workers claimed that National Lead of Ohio Inc., which operated the plant under a government contract from 1951-1985, deliberately kept secret the health hazards of continued radiation exposure at the plant.

Cited: Am. Met. Mark., Vol 103 (No. 2), 4 Jan 1995, p 6 [in English]. ISSN: 0002-9998. PHOTOCOPY ORDER NUMBER: 199502-G4-0010.

[U.S.] EPA Fishes for Feedback on Lead, Zinc Sinkers. The U.S. Environmental Protection Agency is seeking additional comments on a proposal to prohibit the manufacture, processing and distribution of Pb- and Zn-containing fishing sinkers following a late-November 1994 public hearing. Comments on the proposed prohibition must be in EPA hands by 6 January 1995, according to a Federal Register notice. The possibility of banning Pb and Zn fishing sinkers arose from EPA concerns that birds were harmed by ingesting the metal pellets.

L.M. Cohn. Cited: Am. Met. Mark., Vol 102 (No. 250), 29 Dec 1994, p 12 [in English]. ISSN: 0002-9998. PHOTOCOPY ORDER NUMBER: 199502-G4-0009.

Composites Industry Condemns Acetone De-listing. A proposal to declassify acetone as a volatile organic compound (VOC) is not being welcomed by the US composites industry. The Environmental Protection Agency (EPA) has published two rules which, as exclusions from regulation and delisting, would normally be welcome to the composites industry. But, says Composites Services Corp., this is not the case. The proposed exclusion of acetone from the definition of a VOC under the Clean Air Act is a blow to fabricators who complied with mandates to reduce their regulated emissions. Under the new proposal, these companies would not be able to "claim credit" for reducing VOCs by phasing out acetone. Cited: *Reinf. Plast.*, Vol 39 (No. 1), Jan 1995, p 13 [in English]. ISSN: 0034-3617. PHOTOCOPY ORDER NUMBER: 199502-D4-0004.

U.K. Moulders Hit by Environmental Amendment. An amendment to the U.K.'s Environmental Protection Regulations is forcing composites molders to register with Her Majesty's Inspectorate of Pollution (HMIP). The ruling applies to all companies polymerizing or copolymerizing 50 tonnes of styrene a year, effectively anyone fabricating 120 tonnes/year of unsaturated polyester resin. The regulation came into force on 1 December 1994 and any liable molder who has failed to register could face closure or heavy fines.

Cited: *Reinf. Plast.*, Vol 39 (No. 1), Jan 1995, p 9 [in English]. ISSN: 0034-3617. PHOTOCOPY ORDER NUMBER: 199502-D4-0003.

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Furthermore...

The Plastics Technology Center at Penn State University, working in partnership with Port Erie Plastics, Inc., has designed a *reusable plastic version of the traditional wooden pallet or skid* that can be recycled into new pallets when worn out. Software was used for structural analysis and to evaluate the injection molding process.

A solvent guide update is available from **Dynaloy**, **Inc.** that describes a new line of *safety solvents for solving industries concerns of health, safety, disposal, and the environment*. For further information, contact Dynaloy, Inc., 7 Great Meadow Lane, Hanover, NJ 07936; tel: 201/887-9270; fax: 201/887-3678.

A kit which quickly and *easily converts any 55 gallon steel drum into a recycling center* is available from Skolnik Industries, Inc. The conversion kit consists of a drum cover, lever ring, four recycling labels, and a polyethylene bag. For further information, contact Skolnik Industries, Inc., 4900 S. Kilbourn Ave., Chicago, IL 60632-4593; tel: 312/735-0700; fax: 312/735-7257. Custom engineered low-cost overhead magnetic separation systems for tramp iron and material recovery applications have been introduced by O.S. Walker Company, Inc. Featuring high power permanent magnets, these separators are available in manual and self-cleaning designs with the frames, belting, and drive components matched to the applications. For further information, contact O.S. Walker Company, Inc., Rockdale St., Worcester, MA 01606; tel: 508/853-3232; fax: 508/852-8649.

Cortec Corporation as introduced its CORTEC EcoSpray Cleaner and Degreaser, which has the strength to remove heavy hydrocarbons, grease, and machinery oils. The *environmentally*safe formulation is water-based, biodegradable, non-toxic, and non-polluting. The product does not contain phosphates, nitrites, hazardous chlorinated solvents, ozone depleting CFCs, or aerosols, and is non-flammable. For further information, contact Boris Miksic at 800/426-7832 or 612/429-1100.