

In the effort to preserve and maintain the fragile ecology of our planet, these recently selected abstracts are presented to help readers of Journal 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.

Recycling—Laws, Regulations, Practice and the Future. Described is the operation of ISRI, Institute of Scrap Recycling Industries. Magnesium is one of the recyclable metals. The scrap industry has many sellers and few buyers. In the US the scrap becomes an item for international trade because of the large amount. Statistics show the value of using ferrous scrap; reduction in energy and water use and in air pollution. Recycling can be slowed by regulations regarding waste disposal. The RCRA, Resource Conservation and Recovery Act, controls some operations of the recycling industry. Junk cars, treated by shredding, present a problem in disposal because of contamination.

E.R. Pousen and D.L. Sprayberry. Cited: *Conference: Magnesium on the Move*, Chicago, Illinois, USA, 12-15 May 1992, International Magnesium Association 1992, 71-78 [in English]. PHOTOCOPY ORDER NUMBER: 199307-71-0232.

Environmental Criminal Liability: the Brave New Frontier and How to Deal With It. (Retroactive Coverage). There is an increasing tendency to criminalize perceived environmental transgressions. Moreover, such criminalization involves conduct traditionally thought to be innocent. The federal and state governments have a dazzling and increasing variety of legal theories at their disposal in crafting a legal strategy to pursue a criminal case against perceived transgressions. For business people potentially threatened with environmental criminal prosecution, the best protection is deterrence. A vehicle for long-term deterrence may be found in the "environmental audit." Also, on a short term or immediate basis, business people should be aware of not only their obligations, but also their rights when suddenly confronted by government inspectors who may be making unreasonable demands.

S.T. Holzer. Cited: *Conference: Precious Metals 1990*, San Diego, California, USA, June 1990, International Precious Metals Institute, 1990, 37-52 [in English]. PHOTOCOPY ORDER NUMBER: 199306-71-0203.

Avoiding Environmental Pitfalls in the 1990s: a Consultant's Role. (Retroactive Coverage). Environmental trends are driving increasingly stringent regulations and posing significant pitfalls for the unmindful in industry. Companies will face increasing financial liabilities for previous operations, while restrictions on future operations will be more severely regulated. Expansions or relocation projects will be intensely scrutinized and, in most cases, the financial implications will be burdensome. Progressive companies are relying on outside technical consultants to help them move from reactive to proactive environmental management and formulate a systematic strategy for risk management.

H.C. Goodrich. Cited: *Conference: Precious Metals 1990*, San Diego, California, USA, June 1990, International Precious Metals Institute, 1990, 29-36 [in English]. PHOTOCOPY ORDER NUMBER: 199306-71-0202.

Environmental Legislation and the Canadian Steel Industry. Canada has initiated a program to systematically reduce water pollution in Ontario with enforceable regulations that become more stringent as abatement technology improves. The way in which Dofasco (one of four integrated steel plants in the province and with an annual production of ~3.9 million tons of flat-rolled products) is actively contributing to the objectives of the program is discussed. The ultimate goal is the virtual elimination of persistent toxic contaminants from all discharges into Ontario waterways.

T.E. McGuire, J.N. Lockington, D.O. Madlen, W. Thoburn. Cited: *Steel Technology International*, 1993, 215-222 [in English]. PHOTOCOPY ORDER NUMBER: 199306-45-0575.

Environmental Decision-Making: Closing the Plant Door as a Response to Hazardous Air Pollution Standards. (Retroactive Coverage). In 1989 Handy & Harman closed its secondary precious metal refinery in El Monte, California. The reasons for closure were complex, but a primary factor was the perception of an ever-increasing regulatory burden upon the facility. With regard to air emissions associated with pyrometallurgical processing, Handy & Harman perceived increasing problems associated with air toxic emission regulations at the federal and state levels. Perhaps more significantly, it foresaw problems associated with the newly enacted California Proposition 65 as insurmountable. The El Monte secondary precious metal refinery had found itself in the wrong place at the wrong time. Under such circumstances, the only sound decision, for both environmental and business purposes, was to terminate operations.

J.C. Bullock. Cited: *Conference: Precious Metals 1990*, San Diego, California, USA, June 1990, International Precious Metals Institute, 1990, 17-25 [in English]. PHOTOCOPY ORDER NUMBER: 199306-43-0182.

Compounder Wins Emissions Suit. A Connecticut custom compounder has won a year-long court battle with that US state's Department of Environmental Protection, which tried to close the plant following a dispute over its emissions testing methods. A Superior Court judge issued a temporary injunction on 20 April barring the DEP from requiring Polymer Resources of Farmington to monitor vapor emissions at the extruder die head before the emissions could pass through the plant's air-pollution control equipment. However, the judge also ruled that Polymer Resources will have to perform more smokestack testing to ensure there are no public health risks. Polymer Resources will be allowed to remain open during the evaluations.

R. Monks. Cited: *Plastics Technology*, 39 (6), June 1993, 100-101 [in English]. PHOTOCOPY ORDER NUMBER: 199307-P4-0041.

[US] EPA to Expand Toxin-Releases Inventory. Processors and resin suppliers may be required to increase reporting of chemical releases and disposal under the US Environmental Protection Agency's inventory of toxin releases. The agency by November 1993 intends to add 198 chemicals to a list of >250 specific chemicals and 21 families of compounds for which manufacturing companies now must report their emissions or disposal. Reports of emissions and disposal are what EPA uses in compiling the inventory. EPA Administrator Carol Browner announced the inventory expansion at a 25 May press conference during which EPA released its 1991 emissions report.

J. Gardner. Cited: *Plastics News (Detroit)*, 5 (14), 31 May 1993, 22 [in English]. PHOTOCOPY ORDER NUMBER: 199307-P4-0037.

Cadmium Industry Fears Consumers More Than Regulators. A critical discussion of approaches by cadmium-regulation bodies suggests that the pressure exerted on the industry is less than that from consumers. Lists of restrictions imposed by EEC Directive No. 91/338 on the uses of Cd coatings, pigments, and stabilizers, which together amount to ~40% of the Cd usage, are reproduced. Fields in which Cd usage is permissible because of the lack of suitable alternatives or from safety considerations are designated, and a case is cited where a former significant consumer of Cd returned to its use for certain applications when attention was drawn to non-inclusion of these in the regulations. The industry is, however, depending on Ni-Cd batteries as its future market. Advantages of these include their recyclability, which the industry sees as a trump card inhibiting development of a ban Cd attitude. The make-up of the batteries is described with reference to the costs of the nickel and Cd constituents.