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.

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 United States 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.

J. Gardner. Cited: *Plastics 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 or about 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 acetal to xylenol, 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, *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: *Plastics Eng.*, Vol 50 (No. 5), May 1994, p 6 [in English]. ISSN: 0091-9578. PHOTOCOPY ORDER NUMBER 199404-P4-012.

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, since the Los Angeles Basin has the most stringent regulations.

Cited: *CI on Composites*, April-May 1994, p 10 [in English]. PHOTOCOPY ORDER NUMBER: 199404-D4-0007.

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Furthermore

PPG Industries has reported that it ***produced 41,000 fewer tons of wastes in 1993 than in 1992***. Total waste generation has been reduced since 1988 a total of 152,330 tons or 40%, including 32.1320 tons of hazardous waste, a 25% reduction. The 1994 goal is to reduce waste another 26,940 tons, nearly one-third of which (9800 tons) would be hazardous waste. For further information, contact John Ruch, 412/434-2445.

United Air Specialists, Inc., manufacturers of air-cleaning systems, offers a ***free Clean Air Fact Book***. The guide is a 22-page authoritative booklet featuring simple, practical profitable guidelines for cleaner factory air. The booklet discusses new clean air regulations and how to comply, air-cleaning technologies and how they work, maintenance factors, and guidelines for making informed decisions. For a free copy call 1-800-992-4422.

The Environment Management Program at **Rensselaer Polytechnic Institute** has established a working group that will look at ways to ***make the federal Environmental Protection Agency more effective and give it a new focus***. The group will work within the National Environmental Policy Institute to explore ways to move EPA away from a "command and control" strategy toward total quality management-based pollution prevention programs. For further information, contact Bruce Piasecki at 518/276-2705.

The **U.S. Bureau of Mines (USBM)** has developed an ***effective tool for taking metals out of water.*** The porous, BB-sized beads, made from peat moss and a common polymer, do a particularly good job of extracting metal ions present in very low concentrations. Treated water often meets drinking standards for such contaminants as cadmium, lead, zinc, and copper. When iron hydroxides are added to the polymer/peat moss mix, the beads can pick up arsenic and selenium. A major metal mining and refining company is putting the technology to work at a Superfund site near Denver, CO. The beads are being used with a chemical precipitation circuit to clean up water polluted by past mineral processing operations.
