Asarco smelter gets its emission variance—The Puget Sound Air Pollution Control Agency has granted a 5-yr variance to Asarco Inc. (New York) for continued operation of its Tacoma, Wash., copper smelter at arsenic and sulfur dioxide emission levels above the agency's ceilings. Asarco agreed to spend $4.7 million on control equipment during that period, and will additionally run its liquid sulfur dioxide and sulfuric acid plants in order to recover "the greatest amount" of SO_2 from offgases. However, court challenges could delay implementation of the plan, and an environmental impact statement might be needed to make the variance legal. See *Chem. Eng*, Nov 10, 1975, p. 118, and Feb. 17, 1975, p. 41, for earlier reports on the running fray

Good news and bad news for pesticide makers—

- Sandoz, Inc. (East Hanover, N J) has won the first registration from the U.S. Environmental Protection Agency (EPA) for a natural virus insecticide, and intends to market it by June or July Tradenamed Elcar, the nuclear polyhedrosis virus specifically attacks cotton bollworms and tobacco budworms It survives a relatively long 3–7 days, apparently the key to its application as a wettable powder rather than via a more-complicated delivery system such as microencapsulation (*Chem. Eng.*, Jan 19, pp 57–59)
- EPA outlawed most but not all mercury-bearing pesticides. The ban should reduce by 98.5% the amount of mercury entering the environment via pesticides, EPA says, and thus mitigate health hazards. Paint makers had used 90% of the banned products
- Allied Chemical Corp. (Morristown, N.J.) won't reactivate its Aberdeen, Miss., plant for formulating Mirex, a fire-ant insecticide. EPA has challenged Mirex for years because of cancer concern Allied still disputes this, but says it can no longer justify the time and expense of defending the product The U.S. Dept. of Agriculture has been financing Mirex use, and claims there is no known effective substitute.

Vinyl-chloride control news also comes in threes—

- A proprietary, non-noble-metal catalyst jointly developed by Harshaw Chemical Co (Cleveland, Ohio) and Air Resources, Inc. (Palatine, Ill.) stars in the latter's new catalytic incinerator for destroying halogenated organics, such as vinyl chloride, which attack conventional catalysts The fluid-bed unit operates at below 700°F and ¼-s residence time—said to slash energy use compared with thermal incinerators running at 1,800–2,000°F and 2-s residence The first commercial unit has started up at Chemetron Corp.'s La Porte, Tex., plant, for treating an off-stream of mixed chlorinated hydrocarbons, the hydrogen chloride formed is recovered
- A liquid chemical boasting high affinity for vinyl chloride and other organics has been developed by Guardian Chemical Corp (Hauppauge, N Y) for use in air washers and scrubbers. It derives from the firm's Polycomplex, an oil-spill cleanup agent that reportedly helps strip oil from tar sands, and also spawned an emulsifier touted for water/gasoline/alcohol fuels
- A continuous stripping process for cleaning residual monomer from polyvinyl chloride resins (and thus abating emissions) will be used by KemaNord in Sweden, the firm says, under one of the first licenses from developer B. F. Goodrich Chemical Co., Cleveland (*Chem Eng*, Nov 24, 1975, p. 27)

Olin will triple its hydrazine capacity—Anticipating 15–17% annual growth for hydrazine usage over the next nine years, in the U.S. alone and worldwide, Olin Corp. (Stamford, Conn.) is about ready to start building a $25-million plant adjacent to an existing unit at Lake Charles, La. Olin's capacity will reach 30 million lb/yr upon plant completion in 1978. Major hydrazine outlets include rocket fuels, blowing agents, pharmaceuticals, pesticides, corrosion inhibitors, and reducing agents.

Carbide buys another pollution-control business—Just two weeks after announcing acquisition of Westinghouse Electric Corp.'s reverse-osmosis and ultrafiltration technologies (*Chem. Eng.*, Feb. 16, p 44), Union Carbide Corp. (New York) revealed its purchase of licensing rights and assets of W. R. Grace & Co.'s business in ozone generators and systems. Ozonation has been gaining stature as a fill-in for chlorination of wastewaters and potable waters, Carbide says, and meshes especially well with its Unox oxygen-activated-sludge system.

Liquid-sulfur-dioxide process is spreading—A low-cost, closed-loop method for recovering liquid SO_2 from exhaust gases, developed by Stal Refrigeration AB (Norrkoeping, Sweden), went onstream early this year in a Finnish plant, and will soon serve in a plant going up in Zaire. The maiden installation has been running in Sweden for several years. The technique avoids the usual sequence of absorption of SO_2 by water- or solvent-scrubbing, stripping, and liquefaction. Instead, a desired portion of SO_2-bearing raw gas (e.g., from copper smelting) goes directly to a −70°C, atmospheric-pressure refrigeration train for partial SO_2 liquefaction, the gas then recycles for blending with the untreated portion, and the mix continues on to a sulfuric-acid plant.

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