Manufacturers

Sweden pushes ban on PCBs

Electrical applications appear likely to escape ban on product, pegged as a serious environmental contaminant

The Swedish Board of Natural Conservation last month set up polychlorinated biphenyls (PCBs) for what could be a knockout blow come Jan. 1, 1972. Citing "serious" PCB buildups in fish and birds, the board requested that Parliament forbid import and use of the chemical, which is used in paints, plastics, and construction products—and as an insulant/coolant in power capacitors and transformers where end-uses require a nonflammable cooling medium.

Sweden's electrical-equipment makers, however, appear likely to be exempted from the ban. In making the announcement, the board said there is generally no risk of PCBs getting into nature from capacitors or transformers—unless they are damaged or disposed of improperly—and on this ground said the country's electrical-equipment manufacturers, the largest users by far, will "probably" be granted an exemption. Assuming the exemption, they would face "strict" controls in the manufacture, storage, and use of PCBs, said the board.

One member of the board, however, appears to favor a total ban. Lennart Hanner, the board's research director, said after the general announcement that enforcing a ban—particularly when it concerns PCB in small imported capacitors—might be difficult, "but we have to start somewhere."

Sweden doesn't manufacture PCB, but relies on Monsanto in the US and Great Britain, Prodelec in France, and Bayer in West Germany for the roughly 500 tons it imports annually. Biggest Swedish use of the PCBs, whose trade names include Aroclor, Penoclor, and Clorphen, is in capacitors—about 375 tons/year, of which some 250 tons are re-exported in finished products. Swedish transformers use only about 25 tons/year, with the remaining 100 tons are split among the country's paint, plastics, and construction industries.

No health hazard. The problem of PCB in nature was first noted by Swedish researcher Soren Jensen, who was instrumental in launching a study of PCB content in Baltic Sea fish two years ago. The study showed that PCB content is increasing, but at today's level there is apparently no risk in eating fish from the Baltic, he notes. Jensen explained that PCB takes a much longer time to break down in nature than DDT (which, incidentally, was totally banned in Sweden on Jan. 1, 1971).

Monsanto tries harder. Monsanto Co, sole US supplier of PCBs, voluntarily quit selling the chemical to firms using it in sealants, adhesives, and other "open system" products some time ago. And it has done much to encourage proper disposal of PCBs used in electrical (closed-system) applications.

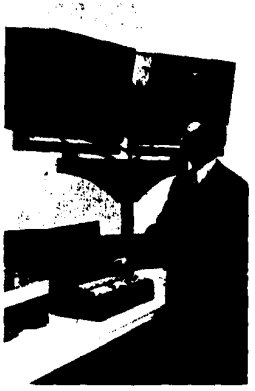
The Monsanto program starts with a warning on the label of its various PCB compounds that says, in part: "This product contains polychlorinated biphenyls, which some studies have shown may be an environmental contaminant. Extreme care should be taken to prevent any entry into the environment through spills, leakage, use, disposal, vaporization, or otherwise."

Following up on this, the company has communicated an offer to dispose of spent PCB, as well as rags, sawdust, and other articles contaminated with it, at a cost of 3¢/lb—a price it claims just covers expenses. But the utility or other end-user must also foot the costs of containers and freight to Monsanto's Sauget (Ill.) disposal/recycling site.

The company points to two things that could lessen disposal costs: A new method of return via tank truck that allows customers to accumulate the spent fluid and return it in larger quantities to reduce shipping costs (the material previously was shipped only in sealed, heavy-duty drums), and completion of a new incinerator at Sauget.

The incinerator, being built at Monsanto's William G. Krummrich plant there, is expected to be in operation about mid-year. It is a special high-temperature design which breaks down PCBs into hydrochloric acid and other materials that are scrubbed out of the waste-gas stream, neutralized, and passed through waste-treating facilities. Its capacity is 10-million lb/year; its cost to Monsanto: $1.5-million. ■

GE carts computer to customer



Part of SEER system exhibit, one of 19 working displays in GE caravan, is shown above. The computerized system is designed to monitor steam-plant performance

If this is March 1 it must be New Orleans for General Electric Co's "GE Action" caravan, a $2-million-plus collection of automation gear the company is wheeling around the country.

The caravan, which will stop at 24 major cities in the US and Canada, is GE's way of showing off the wide-ranging capabilities of its newly organized Manufacturing & Process Automation Business Division. In the words of Howard D. Kurt, vice president of the division, the caravan "graphically demonstrates [GE's] comprehensive capability . . . in the automation field."

The exhibit, geared to electric utilities and other industries amenable to process automation, includes instrumentation, factory-assembled control systems, analytical-measurement equipment, supervisory-control equipment, process computers, and numerical-control equipment. In all, there are 4 static and 19 working displays, one of which shows how process-control concepts can be applied to utility generating plants to measure, record, and control air, fuel, and steam flow.

GE's recent reorganization, creating

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