

Salesmen at GCA were given the same story as their counterparts at the firm in California. Once the tale was swallowed, Virag and Kelmer arranged for two electrical engineers to spend 3 weeks at GCA's plant in Bedford, Massachusetts, learning how the photorepeater and its accessories operated. One of the engineers was Bryan Williamson, now with an electronics firm in England. "I was under the assumption that the equipment was to stay in Canada, where I was to be employed by them," Williamson says. "When in fact it didn't come to fruition, I wanted to know what the hell happened and found that it had been misdirected." Williamson violated no law by acting as a consulting engineer, and says he has cooperated with the ongoing Commerce Department investigation into the scheme. In 1968, he and a firm that employed him in Dublin, Ireland, were barred from receiving U.S. exports after he failed to respond to inquiries about the potential diversion to Eastern Europe of restricted U.S. oscilloscopes. "I was asked to buy equipment for my company which I did, and it was then shipped unknowingly to a prohibited destination. When in fact it was discovered, all was admitted and that was the end of it as far as I was concerned," Williamson says.

Shortly after Williamson completed his technical training at the GCA plant in 1976, the photorepeater system was shipped by truck to Canada. GCA officials were led to believe that the equipment would be stored in a warehouse until DeVimy's manufacturing facilities were complete, and that they would then assist in its installation. Virag says that the day after the equipment arrived, he and Kelmer had it shipped to Amsterdam, where customs officials found it was promptly reshipped to Prague, Czechoslovakia. GCA was led to believe it was being paid (several hundred thousand dollars) from funds supplied to DeVimy by its European investors. Actually, the funds came from an account in Montreal maintained by Virag, one that was replenished regularly from two accounts in Zurich, Switzerland, that cannot be traced any further.

Virag needed two more pieces of restricted computer equipment to complete the semiconductor manufacturing system. One is an autoprober that probes the electrical contact points on a semiconductor chip; the other is a computer simulator that attaches to the autoprober, enabling the operator to search for manufacturing defects. The first was obtained from a computer firm in Mountain View, California, at a cost of

\$40,000, and immediately shipped through Montreal and Amsterdam to Warsaw, Poland. For the second piece of equipment, Virag approached a California semiconductor firm nearing financial bankruptcy. In addition to buying two of the simulators (at a cost of several hundred thousand dollars), Virag engaged the recently deposed head of the company as his consultant. Apparently, the consultant's only role was to travel to the GCA headquarters and verify the quality of the photorepeater system.

The simulators were shipped through Amsterdam to a freight-forwarding firm in Vienna, Austria, with a record of unusual activities. The firm, Express Internationale Spedition, was barred from receiving U.S. exports in 1959, for refusing to answer inquiries about the potential diversion to the Soviet Union of 40 tons of tin mill black plate. The denial of export rights was extended in 1971, after the Commerce Department learned the firm had shipped a sophisticated U.S.-made oscilloscope and parts to the Soviet Union, at the request of an Austrian import-exporter, who was also denied export rights. The denial order against the firm expired in April 1976.

The initial success of the Virag-Kelmer scheme proved to be its eventual downfall. The Soviets were apparently so pleased with the GCA photorepeater that they wanted another. Virag contacted GCA in early 1977 to arrange for a second purchase, prompting the company's officials to inquire about installation of the first. Pressed, Virag told the firm that labor problems and political unrest had prevented him from completing DeVimy's facilities.

Much to its credit, GCA promptly called the Commerce Department. DeVimy Test Lab pleaded guilty in Albany, New York, and received a \$1500 fine. Kelmer was indicted for exports of the photorepeater system with knowledge that its ultimate destination was Czechoslovakia, and he was denied U.S. export privileges for another 15 years.

Who was the mastermind behind this scheme? Despite statements from both Williamson and Kelmer, the Commerce Department has not brought additional charges against anyone. It claims the investigation is continuing.

Tracking down leads may be complicated by the simple fact that numerous import-exporters, freight forwarders, and overseas sales agents apparently take advantage of the opportunity to turn a fast ruble beneath the table. Although an index of transshipment points covers more than a dozen nations, the political-

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Epidemiologists Try to Help Stop More Atlanta Murders

In an uncommon alliance, epidemiologists at the Center for Disease Control are assisting officials in Atlanta in the hope of preventing more slayings of black children there.

The scientists are searching for common characteristics among the slain children by gathering data from sources, including school records and interviews with teachers. The information is to be used to identify youngsters who would be likely targets of future homicides.

To the frustration of Atlanta's residents and authorities, the count of missing and murdered children continues to creep up. This week, two missing children were added to the list of dead after their skeletons were found by police. And last week another child was added to the missing list, raising the number of disappearances to three. So far, 13 children have been killed since July 1979 by unknown assailants. All of the children have been between the ages of 8 and 15 and have come from poor families.

Robert Feldman, chief of enteric diseases at CDC and an epidemiologist, said that the scientists are applying the same techniques of epidemiology to study the histories of the dead children as in analyzing outbreaks of disease. They are examining a wide range of characteristics such as the children's test grades, their conduct at school, and even their height. Are the murders an epidemic? On two counts they are not, Feldman said. It is not unusual that children are murdered nor is the number of dead abnormally high. "What we have, though, is an unusually high number of homicides of children that are unsolved."

CDC epidemiologists have studied homicides once before for Atlanta officials when they compared characteristics of murders committed in the area during 1971-1972 to those during 1961-1962.

While the scientists are trying to help to prevent more killings, Atlanta police have been unsuccessful in solving the homicides already reported. Police have enlisted the aid of homicide experts from around the country and a psychic, but to no avail.

The epidemiologists, who offered their help to area officials, began their study in early December and expect to finish a report by the end of the month. To date, however, the news is not encouraging. Feldman said, "We may or may not find any risk factors. So far we haven't found anything."

Dump Delaney Clause, Schweiker Suggests

Secretary-designate of the Department of Health and Human Services, Richard S. Schweiker, believes that the Delaney clause should be scrapped. During his Senate confirmation hearing on 6 January, the former Pennsylvania senator said that he preferred a risk-benefit approach to food safety rather than the Delaney rule, which bans the use of food additives shown to cause cancer in animals.

When asked by one of his former senatorial colleagues about the con-



Richard S. Schweiker

trovercy over nitrates, Schweiker criticized the current rule. "We have to redefine the clause in terms of a risk-benefit ratio. The regulation has to relate to present technology," he said. "Now we can find parts per billion of a substance in laboratory tests, so I am receptive to the risk-benefit approach."

In other matters, Schweiker was quizzed mainly about social service programs such as national health insurance and Social Security. References to scientific research were made only briefly during the 2-hour hearing before members of the Senate Finance Committee, who praised Schweiker as the future HHS secretary.

At one point, Schweiker was asked what he would like his one achievement to be after serving as HHS secretary. "I'd like to be remembered as putting preventive health care and

preventive medicine at the top of the list of priorities," replied Schweiker, 54, who says he jogs 2 miles a day. Then, in the only reference to research, he commented that studies should emphasize "what keeps people well, not only what happens after they become ill."

Schweiker was active in health care policy while a senator. He served as ranking Republican member of the Labor and Human Resources Committee and of the labor, health, and education appropriations subcommittee.

White Sands, Warm Winds, and . . . Toxic Wastes?

The Bahamas and other Latin-American countries could become the dumping ground for American chemical trash, which a company in Alabama plans to collect and export. But the Birmingham-based firm, Ashvins, Inc., has run into a barrelful of problems causing delay.

The State Department, concerned that shipping wastes to less-developed countries could prove to be embarrassing to the United States, has already met with the Bahamian ambassador to the U.S., to notify him of Ashvins' plans. The department has also cabled U.S. embassies in Nicaragua, Honduras, El Salvador, and Guatemala that waste exports may be coming their way via Ashvins.

The company applied for permission to begin collecting waste just before stricter federal controls on hazardous wastes went into effect last November. Ashvins already has contracts with several American companies to collect chemical waste and is negotiating with a private Bahamian company to accept shipment, according to Ashvins spokesman, John M. Smith.

The policy of the Bahamian government, however, has been to refuse hazardous wastes from other countries, said a top Bahamian health official. The Bahamas already has chemical dumps on the island of Grand Bahama for their own petroleum and chemical industries. But Permanent Secretary of the Ministry of Health, Harold Munnings, said that it was unlikely he would recommend that foreign waste be allowed into the coun-

try. "Why should we inherit someone else's problem?" he said in a telephone interview.

Company spokesman Smith said that, despite the numerous problems, the firm is determined to forge ahead. He said that critics have called Ashvins "a shady operation, but it's a business venture like anything else. People get spooked when you mention hazardous wastes." But, in response to a question, Smith said that none of Ashvins' officers has a background in handling waste. Nor does the company have a technical expert on staff. Smith said the firm has contracted with laboratory and engineering firms to handle technical problems.

Before Ashvins can export the waste, it will first have to get Environmental Protection Agency (EPA) approval to begin collection in the U.S. The main point of contention between EPA and Ashvins is whether the firm was "in existence," according to EPA criteria, before 19 November, when the stricter controls went into effect. The company, which filed its application 16 November, argues that they met the agency's requirements.

EPA attorney, David Engle, said that Ashvins' application needs, for example, to list what type and what quantity of wastes the company will handle. Smith said that Ashvins will not handle anything radioactive, explosive, or bacterial. But that still leaves an enormous list of more than 400 hazardous and toxic wastes.

If Ashvins is finally permitted to collect wastes, it can then begin exporting. The U.S. government has no authority to ban shipment outside its borders. Under the current system of monitoring such exports, the State Department largely relies on information from EPA and then alerts the foreign government involved.

Director of the State Department's office of environment and health, Donald King, said that exports of hazardous wastes can pose sensitive problems for the United States. For almost a year, the State Department, EPA, and other agencies have been considering a proposal to require an export license for waste, but the government has yet to adopt a stricter policy.

King says that he favors the idea of export licenses, but that the State Department "has managed all right under the current system."

Marjorie Sun