

J.S. firm offers mass, cheap testing for toxins in workers

John Deverell Toronto Star

Accurate toxic chemical tests on humans can now be done so cheap that mass testing will soon reduce fear and speculation in the environmental and workplace pollution debate, says a leading scientist.

John Laseter, a biochemist and advisor to the U.S. Environmental Protection Agency, says new test methods can put detailed knowledge of chemical poisoning into the hands of corporations, unions, individual citizens and their doctors at a relatively low cost.

Laseter, formerly of the University of New Orleans, is in Toronto raising capital for expansion of his company, Enviro-Health Systems Inc. of Dallas.

Mass chemical analytic testing methods he and others have developed over the past 15 years have leaped beyond expensive pound-by-pound testing of an blood and urine specimens into testing on a mass production line, he said.

Chemical society

To live in a chemical society, we need the chemicals," said Laseter. "But we also know that 7 of the 60,000 new chemicals produced in the last 40 years have terrible effects, and that health effects occur in some people at exposure levels much lower than those which cause immediate and obvious symptoms and illness."

Enviro-Health labs provide samples and results within 48 hours of receiving samples and are able to handle requests from here in the world. The service includes a comparison of the test results with a growing data base of results taken from individuals in the United States and be-

lieve the company's analytic techniques rely on computer-assisted chromatography-mass spectrometry, and can detect one part in a billion in fluid — the equivalent of detecting a grain of salt in a swimming pool.

The multiple compound test covers — for pesticides, herbicides, phenols, solvents and polychlorinated biphenyls (PCBs) — available at prices ranging from 100 to \$185 for single specimens with discounts for group

The Enviro-Health lab also helped identify a problem of drinking water pollution in a Tucson, Ariz., neighborhood. It identified traces of solvents in one sick person which were eventually traced to pollution of groundwater and wells by a nearby aircraft factory.

"We're geared to serve doctors, and we report only to those who submit the samples," said Laseter on the touchy question of medical confidentiality. "In our view negative results are just as important as positive results in getting doctors quickly to a correct diagnosis. Good data helps them sort out the hypochondria from the real illness."

Quick, accurate human testing can also prevent the waste of public and corporate time and money, he said.

Pesticide test

The pesticide test, for example, offers analysis for 18 toxic substances including aldrin, dieldrin, DDT, DDE, and hexachlorobenzene. The solvent test covers six aromatic compounds including benzene, toluene, xylenes and styrenes, and six halogenated hydrocarbons including trichloroethylene and dichlorobenzenes.

Laseter's business strategy has been to approach corporations and insurance carriers, touting the advantages of cheap medical monitoring as a protection against gigantic lawsuits by sick employees (a possibility that does not exist in Canadian law). "If a worker is contaminated before he is hired, an industry needs to know that for its own protection," Laseter observes. "A lot of chemical companies can't even get insurance any more, and this offers them a method of making the insurance carriers more comfortable."

Medical monitoring can be used to identify problems and reduce worker exposures before they become too serious, he adds.

Some of the most interesting effects of cheaper knowledge, however, arise from testing initiated by independent physicians. "One large group of people has come to us from a neighborhood near a chemical plant in Texas where one person got sick. The company management went into a state of shock when they called us and found out how easily we could test everybody. Information is infectious, and the legal implications are quite dramatic."

Dow linked to chemicals in river mud

By JOCK FERGUSON

Dow Chemical Canada Inc. dumped toxic chemical wastes, including dioxins, into the St. Clair River last year, according to the Ontario Environment Ministry.

Laboratory analysis results received by the ministry last week found dioxins in the river from the Dow manufacture of the herbicide 2,4-D. Dioxinofurans and other hexachlorobenzenes also were detected in the mass of tar sludges that the ministry said came from the production of a Dow dry-cleaning solvent called perchloroethylene.

Dow spokesman John Musser said he had not seen the ministry findings and had no knowledge of how the toxic material got into the river. The wastes are usually drawn off the bottom of the solvent process and disposed of by incineration.

Jim Dochstader, Sarnia district officer for the ministry, said, however, that the wastes entered the river from the First Street sewer into which the Dow plant discharges.

"I've been assured by Dow many times that its wastes are not getting into the river," Mr. Dochstader said in an interview. "It really concerns me that this stuff is . . . (not) being detected by Dow's monitoring equipment."

"They could be sampling the top water in this sewer while the heavy tars on the bottom go undetected. These hexachlorobenzenes are known carcinogens."

He said Dow's monitoring — the company takes continuous samples of the sewer wastes — had detected similar discharges of tar wastes in the past and the company had sent 18 divers to clean them up.

While the levels of both the dioxins and furans were in the parts per billion, the perchloroethylene levels were 35,000 parts per million.

Many of the substances detected in the rivers are known to cause cancer in laboratory animals, while the solvent is a known cancer-causing agent and a potent polluter of drinking water supplies.

Environment Minister James Bradley announced stepped-up water monitoring on the river after the discovery.

The bottom sludge was detected in August, 1984, by divers for the Great Lakes Institute who took samples of a large pool of chemical sludge sitting on the bottom of the river where the First Street sewer empties from the Dow plant.

A spokesman in Mr. Bradley's office said the ministry is concerned that waste discharges may have been going on for years without detection. The fast-flowing river eventually disperses the tar wastes even though they are much heavier than water and sink to the bottom.

The ministry is sending boats to sample the river off the Dow plant in Sarnia and is taking the precaution of sampling for the presence of dioxins in raw and treated water at Wallaceburg, Amherstburg, Windsor and Walpole Island.

Preliminary results found no dioxin in the Wallaceburg water, the ministry spokesman said. It is highly unlikely that any dioxins will be detected since the tars were discovered more than a year ago, the ministry spokesman said.

Mr. Bradley's office has asked for a detailed analysis of all spills Dow has reported to the industry's Sarnia office.

The ministry recently released a year-old study, done by the former Conservative government but never made public, that shows high levels of wastes in the St. Clair River near the strip of chemical companies in Sarnia.