

Dioxin testing complex, scientists say

JOEL O'KANE
The Daily Gleaner

Operators of at least two Canadian laboratories say they're interested in doing the testing for dioxin at Canadian Forces Base Gagetown this summer.

The process is expected to be so complex that one expert has compared it to locating a grain of sand in an Olympic-sized swimming pool.

AXYS Analytical Services Ltd. and Pacific Rim Laboratories Inc., both from British Columbia, expressed interest in doing the tests when contacted by The Daily Gleaner.

Department of National Defence spokesperson Tina Crouse said it's still early in the planning process and she expects more information will be available by the end of the summer.

"We will be initiating a soil, vegetation, air and water sampling program this summer," she said. "We're currently working on the requirements for that program and we will use the competitive process to select a contractor to do that work."

She wouldn't comment on when the testing will be done, by what company and what it will cost taxpayers.

Military officials told a public meeting at the base last month that a private company will do the dioxin testing.

Dioxin is one of the world's most toxic substances. The United States Institute of Medicine has said it may be linked to several forms of cancers and other ailments.

It is a contaminant produced during the manufacturing process for some herbicides such as Agent Orange.

David Hope, CEO of Pacific Rim Labs, said the limited market for dioxin testing, usually done for government departments, means most labs will be jumping at the chance to do the testing at CFB Gagetown.

"Dioxin is a very niche analysis in the environmental repertoire," Hope said. "There's only six (private) labs in Canada accredited to do dioxin testing."

The tests typically cost anywhere from \$800 to \$1,000 for each sample, he said, because of the precision involved.

He compared a soil test, usually measured in parts per trillion, to trying to find a jar of instant coffee dumped in Lake Ontario.

Water tests are even more difficult, Hope said, measured in parts per quadrillion. That's like trying to find a \$20 bill anywhere in Canada, he said.

Despite the precision involved, dioxin is a persistent molecule and Hope has no doubt it can still be found at the base.

"If it was there, it still will be there," he said. "Whether it's in a significant concentration will remain to be seen."

Coreen Hamilton, the technical director for AXYS Analytical, said AXYS has the international reputation, expertise and precision equipment required for the testing.

It has done extensive testing in Vietnam, where U.S. forces used Agent Orange and other dioxin-laced herbicides during the Vietnam War.

"We are experienced with the 'Agent Orange fingerprint,' having conducted this analysis in support of the Agent Orange trackdown work in Vietnam and elsewhere," she said.

"AXYS also provides analysis of human serum to assist with the evaluation of the human impact of the dioxin from the Agent Orange and similar defoliants."

Wayne Dwernychuk of Hatfield Consulting Ltd. in British Columbia has studied dioxin's long-lasting effects in Vietnam.

Now that a lawsuit has been launched by alleged victims from the CFB Gagetown incident, he said the results will face more scrutiny.

"There will be a lot of interest in what is coming out, so it has to be done properly," he said. "This is why I think DND should put, and whoever is the consultant who's going to do it, a lot of thought and care into the design of the program. It will be scrutinized quite carefully by lawyers now and invariably by the public."

The department has restricted its scope of the CFB Gagetown incident to seven days in 1966 and 1967.

Documents obtained through a right to information request, provided to The Daily Gleaner by Oromocto-Gagetown MLA Jody Carr, show 2,4,5-T, the dioxin-

contaminated component of Agent Orange, was being used at the base as early as 1956.

In that year, 24 barrels were used over 3,687 acres.

"It completely disavows the restriction to 1966 and 1967," Dwernychuk said. "... It's almost irresponsible in my mind to be focusing solely on '66 and '67, when in point of fact, you are using the most contaminated component of Agent Orange, the 2,4,5-T."

He has studied similar scenarios with Agent Orange use in Vietnam during the 1960s, where dioxin continues to be found in the soil.

"This is why I am fairly confident that, with a proper sampling program, there is a relatively high probability that you would find something in the soil of Gagetown," he said.

"However, that being said, having found something does not necessarily mean it may be toxic at this particular point of time."