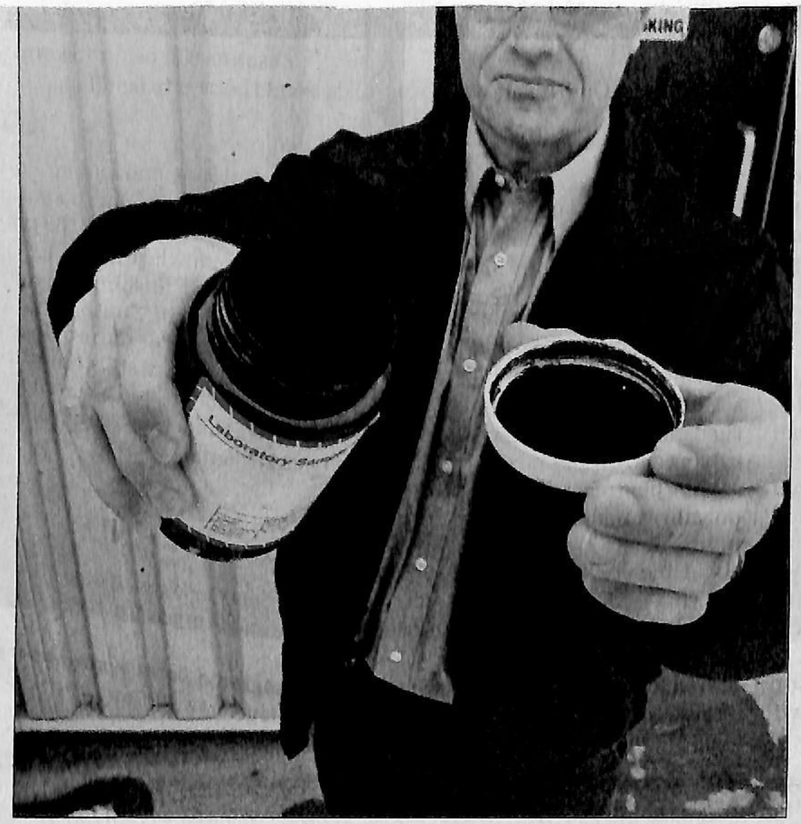
But the provincial regulations governing testing and application were last updated in 1998 and today a whole new range of chemical compounds are turning up in our sewer systems.

Furthermore, the local officials who investigate health complaints are not required to report their findings to the province.

Anti-sludgers, in the words of soil scientist Murray McBride, see a "disaster waiting to happen," involving everything from medications excreted in human waste to such pathogens as E. coli that are capable of surviving the treatment process.

But the province requires that biosolids be tested. When biosolids leave a municipal sewage plant they are checked for 11 heavy metals as well as E. coli bacteria, organic material and nutrients such as nitrogen and phosphorous.

The guidelines do not, however, require testing or regulation of pathogens — disease-causing agents such as bacteria, viruses, prions, endotoxins and parasites — or organic contaminants such as dioxins, PCBs, pesticides, detergents, cleaning solvents, flame retardants (PBDEs),



DAVID COOPER/TORONTO STAR

Supervisor John Rammler at Corbett Creek Wastewater Pollution Plant in Whitby with a sample of liquid sludge.

least 90 per cent of the dioxins and metals found in the original wastewater, for example, end up in the sludge, he says.

ORIGINALLY WRITTEN in the 1970s, Ontario's biosolids guidelines have since been revised to toughen up site and growing requirements, standards for metals and an expanded list of crops permitted to be grown using sludge.

The guidelines were last updated in 1998 to make the language more user-friendly, says Smith, policy and special projects manager for the ministry's waste management policy branch and co-chair of the Biosolids Utilization Committee, an advisory group to the two lead ministries.

According to the guidelines, organic contaminants in sludge do not pose a threat to human health.

"There hasn't been any harm to human health or the environment" in studies of the locations where biosolids have been applied over several years, Smith says.

But biosolids are a "difficult matrix" to analyze for a multitude of compounds and where they actually end up, simply because the science isn't

pounds is very rudimentary," n Kleywegt. What is known is t PPCPs are present in trace amou in sludge equivalent to "a penny swimming pool," she says.

"Someone would have to eat 1 lions of pounds of biosolids to ca any effect in their body."

With advances in analysis and going research in partnership v the federal government, other pr inces and universities, the ministr comfortable saying that "the use biosolids continues to be safe."

McBride rejects that conclusion "Is it reasonable," he wonders, conclude that there is little or no r of land-applying a material conta ing unknown concentrations thousands of chemicals with un termined toxicities?"

THE MAJOR CONCERNS

- **Persistent organic pollutan** (POPS): These potentially hazardo organics can accumulate and per in soil, unlike others that degra One example is trichloroethelene cleaning agent used in toothpa and anti-bacterial soap that has be found in fish and wildlife. Dr. Dav Lewis, an internationally recogniz

JIM ROSS FOR THE TORONTO STAR

Laurie and Allan Eagles, Tara, 19, and Jack, 17, outside the biosolids centre.

OAKVILLE FAMILY FILES SUIT OVER TREATED SEWAGE LAGOON NEA

CAROLA VYHNAK
URBAN AFFAIRS REPORTER

Don't try to tell Laurie Eagles sludge is safe.

Twelve years after prolonged exposure to a pit of human waste, she and her family of four are still suffering from bouts of pneumonia, bowel disease and respiratory disorders.

They were living in rural Oakville in 1996 when a lagoon for Toronto's treated sewage opened less than a kilometre from their home.

The lagoon, which was the size of two football fields, was supposed to be a temporary storage facility at the W.A. Bill Johnson Biosolids Management Centre but "it got bigger and bigger and fuller and fuller," recalls Eagles.

"It was an open pit. The stink would bring you to your knees — it burned your nose, it was horrendous."

"I didn't know what was in the stuff but the more I learned, the more scared I got. At one point, I was calling (authorities) five and six times a day, the smell was so bad."

In the summer of 2000, their well tested positive for E. coli, Eagles says, and her husband, Allan, spent 10 days in hospital with Crohn's disease.

When the pit was finally closed in 2002 after years of fighting with the regional and provincial governments, their symptoms suddenly stopped, they say.

"I am absolutely convinced it was the cause of our health problems. It was as if we were living beside a field that was being sludged every day with no let-up."

The family has filed a $2 million lawsuit against Halton Region and American Water, the parent company of Azurix North America (Canada) Inc., which transported the sludge to the site.

The lawsuit has yet to be heard in court.

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