



## Health Canada's Golden Rule

By Dr. Hans Peterson

When Dr. John O'Connor raised concerns over oil industry activity and the possible linkages to illness in the community of Fort Chipwyan, Alberta he must have known that he was breaking Health Canada's - Golden Rule - the one with the Gold makes the rules. The approach seems to be that unless there are scads of data to prove that a problem exists, it cannot even be mentioned as a potential problem.

When Health Canada applies the Golden Rule to water it is simply to state that there could not possibly be any links between water and human illness. This is a pretty bold assumption when the United Nations estimates that more than 80% of all illness in a developing country is caused by water, and indeed 35% of all productivity is lost due to waterborne illnesses. Yet, in our country, Health Canada will not tell us what those numbers are.

Potential links between water and illness need to be examined! This brings me back to Health Canada. A couple of years ago Health Canada received some \$150 million extra dollars to do something about drinking water testing in aboriginal communities to ensure that the water was safe. Health Canada responded by expanding its testing of coliforms, E. coli, total and free chlorine as well as nitrates, from once per month to once per week. If there are no coliforms, chlorine levels are sufficiently high, and the levels of nitrates are below the guideline, then everything is assumed to be fine.

But first what Health Canada seems to have forgotten is that only one-third of waterborne illnesses have positive coliforms associated with them.

Second, many microbes including protozoan parasites, such as *Cryptosporidium*, cannot be killed by chlorine.

Third, the U.S. Environmental Protection Agency estimates that two-thirds of all waterborne illnesses are caused by viruses; viruses in drinking water is something that Health Canada has not



*Effect of bleach on dirty water*

paid much attention to. Yet, there can be more than 100 different types of viruses in human wastewater, and several of these can cause "mainstream" human illnesses, such as viral infections of the heart muscle. I wrote a review article before the Walkerton E. coli outbreak titled: Rural Drinking Water and Waterborne Illness.

One of the most distinguished drinking water specialists in the world, Dr. Colin Fricker, stated at SDWF's 2004 workshop: "The monitoring that you have to do for regulatory compliance does nothing whatsoever to protect public health".

Even with Canada's drinking water quality guidelines there are more than 50 other health requirements in addition to aesthetic requirements that must be addressed. Despite guidelines, the requirements for producing quality drinking water are far more stringent in Europe and the United States than in

Canada. Also, in Canada, we have guidelines, while in Europe and the US they have regulations backed by law. By comparison, how effective would traffic guidelines be instead of regulations?

Even stringent regulations are often not enough as expressed by the U.S. National Research Council in 1998:

Current drinking water quality standards are aimed at water obtained from relatively uncontaminated sources and, thus, cannot be relied on as the sole standard of safety.

Unfortunately, many water supplies used to make safe drinking water in aboriginal communities cannot be considered "easy" to treat due to the presence of chemical compounds and microbes, providing the water treatment plant operator with daily challenges to produce an acceptable quality product. Frequently the equipment used to make the water safe is simply not designed to address many of the problems.

While several organizations are supporting Dr. O'Connor's right to express his concerns, this is not good enough. The Canadian public deserves to have a civil service that uses, rather than abuses, science to protect its citizens. Health Canada should allow its scientists to proclaim that the water is safe in Aboriginal communities, or let medical doctors and engineers do so. At least then we would have some means of verifying information and testing through the medical and engineering societies' ethical committees and not by political expediency.

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