

Protecting human health

DR. HANS PETERSON, SAFE DRINKING WATER FOUNDATION

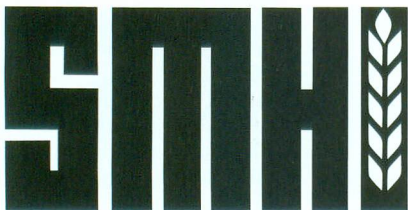
Contaminants in the environment can affect how long a person will live and what illnesses that person will suffer. Recognizing the link between environmental contaminants and human health has been a cornerstone for environmental regulations. Many countries, especially in the developed world, pride themselves for achieving stringent protection of the environment. Canada is one of those countries. Environmental regulation in Canada is implemented by both federal, provincial and municipal governments. While federal agencies are frequently seen as providing the "big plan", implementation is many times left to lower levels of government. The "signals" from the top will, however, have far reaching repercussions for how environmental contaminants are dealt with.

Contaminants often start out being air-borne, but then frequently end up being waterborne. Pesticides are a good case in point. I am one of a team of scientists who on behalf of the International Life Sciences Institute (Washington DC, <http://www.ilsa.org>) are trying to figure out what happens with low-volume, high-toxicity herbicides (mainly newer types of herbicides) once they have entered the environment. It is clear that even after products have been registered for use there is a considerable amount of scientific uncertainty as to how, when, and why they show up in air, water and soil.

Science is rarely black and white and reaching the "right" decision is quite challenging. It requires teams of scientists putting pieces of the puzzle together. In ILSI's project six scientists

are tackling the writing (I am responsible for the aquatic assessment) and another 12 scientists are overseeing our work (including scientists from U.S. the Environmental Protection Agency, Pest Management Regulatory Agency (Canada), the U.S. Department of Agriculture, and several U.S. universities and pesticide companies).

Sometimes making scientific decisions require political backup or the decisions simply become of little practical use. Even with scientific and political backup decisions may at times be blown apart by other factors. This is troubling and worth a closer examination. A specific compound will be used to illustrate the issue. When lead was banned from use in gasoline other anti-knocking compounds were developed and added to the gasoline. These compounds include a compound



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called MMT. MMT contains manganese, which can be a brain-toxin (neuro-toxin) and is suspected to accelerate the aging process.

MMT is the most commonly used fuel additive in Canada, but it is used in less than one percent of gas sold in the U.S. The U.S. Environmental Protection Agency (EPA) tried to ban MMT, but after a legal challenge by MMT's manufacturer, Ethyl Corp., EPA was unable to enforce a ban. Instead, they issued a statement of concern that:

"The American public should be used as a laboratory to test the safety of MMT. EPA believes more testing should be done".

California banned the use of MMT in the late 1970's; its ban remains in effect. The Canadian Government wanted to follow the U.S. and introduced legislation to ban the trade of MMT in Canada. CBC's the National (July 22, 1999) showing footage from the House of Commons with the then Minister of the Environment (1995), Sergio Marchi, stating the following about MMT:

"We cannot, Madame Speaker, take chances on people's health"

"Which of course brings me to the main argument of my first point concerning the need for this legislation, namely the health of Canadians and a healthy environment".

Mr. Marchi was warned by the Minister of International Trade about a potential trade challenge to banning MMT under NAFTA, which Mr. Marchi responded to:

"Is the member suggesting that a U.S. multinational corporation should dictate what the government of Canada should do in the best interest of Canadians, both environmental and health? Because our answer to that, Mr. Speaker, is a clear no."

The bill passed but was soon reversed when MMT's manufacturer took action and sued the Government of Canada under NAFTA. The 250 million dollar lawsuit was later settled out of court and the Government of Canada paid Ethyl Corp. \$20 million. When CBC's the National interviewed

Ethyl Corp's lawyer in the suit against Canada he made the following statement:

"Even if this was liquid plutonium going into our foodstuff, the NAFTA does not permit you to not pay compensation. Your argument will be about what the amount of the damage is, not is this or is this not a compensation".

British Columbia has asked the federal government to reinstate the ban on MMT. Most car manufacturers want it banned as it may disable the pollution control systems in vehicles.

Acting on valid scientific concerns carrying out more testing before widespread use of chemicals that are threatening the environment and human health is to follow a principle called due diligence. Implementing due diligence is something provincial and federal Canadian government agencies have great difficulties with. There is one main reason for this, absence of litigation.

In contrast, soon after the U.S. Environmental Protection Agency was formed it realized that litigation from both industry and environment groups left EPA scientists spending large chunks of time in court. With time the proportion of lawyers in EPA increased drastically. This has led to U.S. environmental regulations that hold water. People are actually jailed for abuses of the environment (including criminal charges against government agencies). In Canada, environmental crimes are rarely prosecuted. Indeed, in Saskatchewan there has been only one successful federal environmental prosecution during the nineties. Saskatchewan Environment and Resource Management suggests that during the nineties there may have been a few successful prosecutions for failing to meet environmental regulations or permit requirements by the Province. Does this really mean that all the environmental crooks are in the U.S. and few in Canada?

The following examples deserve some thought. A few years ago I was travelling with the research director of one of Saskatchewan's largest

companies to have a look at the waste of a food processing plant somewhere in Saskatchewan. On the way to the plant the research director explained that the waste stream is similar to a plant his company has in the U.S., which is under 24 hour supervision by the U.S. Environmental Protection Agency. Another of his company's plants is located in the Niagara escarpment, the waste needs to be trucked out to another municipality for disposal. The research director suggested that it would be of great benefit to know how to treat this type of waste to make it environmentally benign.

After several hours driving we arrived at the Saskatchewan plant. The plant manager thought we wasted our time as Saskatchewan Environment and Resource Management had given the plant a direct discharge permit into the North Saskatchewan River, just coordinate discharges with Sask Power's release of water for hydroelectricity. In other cases discharges are not from industry, but from municipalities like the Town of Outlook's long-standing discharge of virtually raw sewage into the South Saskatchewan River. For farmers and communities downstream of such releases let's hope they treat their water carefully before drinking. Or environmental problems become health problems. When government agencies give permits to pollute, rest assured that somebody will pay for it.

Arguments that environmental protection is harmful to the economy are misleading. Indeed, a Harvard Business School economist (Michael Porter) states in his book "The Competitive Advantage of Nations":

"Stringent standards for product performance, product safety and environmental impact contribute to creating and upgrading competitive advantage... Particularly beneficial are stringent regulations that anticipate standards that will spread internationally. These give a nation's firms a head start in developing products and services that will be valued elsewhere". ■