

Rachel's Environment & Health News

#187 - Niagra River -- Part 2: A Gold Standard For Control Of Toxics

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The area along the Niagara River in northern New York state has the heaviest concentration of chemical dumps in North America. The river connects Lake Erie with Lake Ontario and forms the border between the U.S. and Canada. Some 5 million people drink water that flows through the Niagara River and into Lake Ontario, including 25% of the entire population of Canada. The international process for cleaning up 66 toxic dumps along the Niagara River, which began in 1979, has become the subject of an excellent video called TESTING THE WATERS. Lynn Corcoran, who produced the video, chose this topic because cleanup of the Niagara River will set precedents for the way other areas are cleaned up.

The video looks at two aspects of the problem: industrial dumping directly into the river through discharge pipes, and industrial dumping into holes in the ground (so-called landfills). In each case the video tries to show how we got where we are today, and what our options are for the future.

Industrial Discharge Pipes

Dumping industrial poisons into the drinking water supplies of 5 million people is entirely legal, so long as you request a permit to do it. How does our government decide how much dumping is OK and how much is too much?

On the video, a representative of the New York State Department of Environmental Conservation (DEC) explains that they dole out river dumping permits by first deciding how much waste the entire river can "assimilate," then they divvy up this "assimilative capacity" among the various dumpers.

This explanation is followed immediately on camera by a representative of Environment Canada, which is Canada's equivalent of our federal EPA (Environmental Protection Agency), who explains that many chemicals such as PCBs, dioxin, and the pesticides Lindane and Mirex aren't "assimilated" or degraded at all by the River. They merely flow downstream and settle in Lake Ontario, where they build up year after year, slowly accumulating and concentrating in food chains. This aspect of the problem is not considered by New York state officials.

In addition to using "assimilative capacity" to apportion dumping permits among the dumpers, New York DEC and our EPA also use "risk assessment," we are told on camera. For each chemical that a company wants to dump, the government decides how much of that chemical will kill one in a million people (this is considered an "acceptable risk.") They then license the polluter to dump sufficient quantities of poisons to kill just that many citizens and no more. However, Professor Ross Hume Hall from McMaster University appears on camera pointing out that no one really knows how much of a chemical causes what effects; and, he points out, each "risk assessment" is carried out as if the human body only encountered that one chemical alone. Despite large gaps in our knowledge, and despite incorrect assumptions, governments routinely use risk assessments to make life or death decisions that are binding on the citizenry.

Next we see a representative of Occidental Chemical (the people who created the Love Canal toxic dump), Thomas Jennings. Mr. Jennings says, "I think we're all familiar with the way new drugs and pharmaceuticals have to go through rigorous testing. Well, to a lesser extent, industrial chemicals have to go through the same thing." Unfortunately, Mr. Jennings is simply wrong. Congress did pass a Toxic Substances Control Act (TSCA) in 1976 containing language about testing all new chemicals before they are marketed. But EPA has neither the will nor the money for such testing, so about 1000 new chemicals are put into commercial use each year without any testing for their health effects. This part of TSCA is simply ignored.

Next Mr. Jennings explains that for each chemical there is a threshold, an amount below which no health effects occur and

above which people get sick. He says, "We have to determine what that level is. That's a major task for industry and for health officials into the future," he says.

Then we hear once again from Professor Hall who points out that there are 60,000 chemicals in industrial use and we have "absolutely no information whatsoever" on 40,000 of them. He goes on to note that studies aren't being done and to ask, without studies, how can we conclude there's no problem?

The narrator then frames a key question: In the absence of information proving that a substance is dangerous or safe to humans and the environment, how should government regulators act? Should they wait for evidence of danger or should they err on the side of caution and restrict the discharge of a substance into the river because it might cause harm? Should chemicals be assumed innocent until proven guilty, or the other way around?

So there you have the present regulatory system in a nutshell: 40,000 chemicals already in use have never been studied for their effects on humans and on the environment. Despite what the gentleman from Occidental says, new chemicals are not tested before they are put into use. The government hands out dumping permits on the incorrect assumption that the river can "assimilate" all the chemicals that will be dumped. Furthermore, dumping permits are issued based on health "risk assessments" which assume that the government knows the health consequences of the chemicals that are being dumped (an incorrect assumption), and further assumes that any individual is only exposed to a single chemical at any moment, which is clearly not the case. Industry says it's up to government and industry to find "safe" levels of chemicals; the way this is being done today is to expose large human populations to a witch's brew of chemicals without studying the consequences in any systematic way; when a cluster of birth defects or cancers shows up and citizens start hollering, then the government may grudgingly conduct a study. Meantime, the dumping continues on a grand scale and many fish in the Great Lakes now suffer from goiter and liver cancer and have become unsafe to eat (see RHWN #146).

The alternative, of course, is to declare that this massive experiment on the environment is unacceptably Russian roulette and to require industry to shift to closed-loop technology, designing every industrial system to meet a goal of zero discharge. As the narrator of this video points out, it has been the stated intention of all four governments since before the turn of the century that water used in industrial processes should be free of contaminants before it is discharged into the river. Zero discharge of toxics has been the goal for 100 years.

But now a representative of DuPont appears on camera saying zero discharge sounds good but cannot be achieved. And Mr. Jennings from Occidental Chemical says zero discharge will simply shut down industry.

Clearly these gentlemen misunderstand. We are not advocating perfection. We are merely advocating a gold standard for toxics. Some 3 billion Troy ounces of gold have been mined during the past 6,000 years. A tiny fraction of this has been sunk at sea, has been buried in tombs now lost, or has otherwise become irretrievable. But in general, we notice that there is not a "waste gold" problem anywhere in the world. Today gold is successfully mined at concentrations of only 3 or 4 parts per million (ppm). At even lower concentrations, it is readily reclaimed from scrap. Nanograms are captured.

Historically, the real value of gold has not been that it constantly increases in value, but that it rarely declines in value. As society applies the "gold standard" to polluters, zero discharge of their poisonous wastes will likewise allow them to retain what they already have and cherish: their good names, the absence of leg irons, and the uninterrupted flow of life fluids between their

shoulders and their heads.

Get: TESTING THE WATERS from Bullfrog Films, Oley, PA 19547; phone (800) 543-3764. \$350 purchase or \$75 rental for schools and citizen groups.

--Peter Montague

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Descriptor terms: zero discharge; gold standard; remedial action; niagara river; love canal; assimilative capacity; water pollution; rivers; occidental petroleum; tsca; risk assessment; how clean is clean; great lakes; ny; landfilling; drinking water; tsca; chemical industry; ross hall; government;